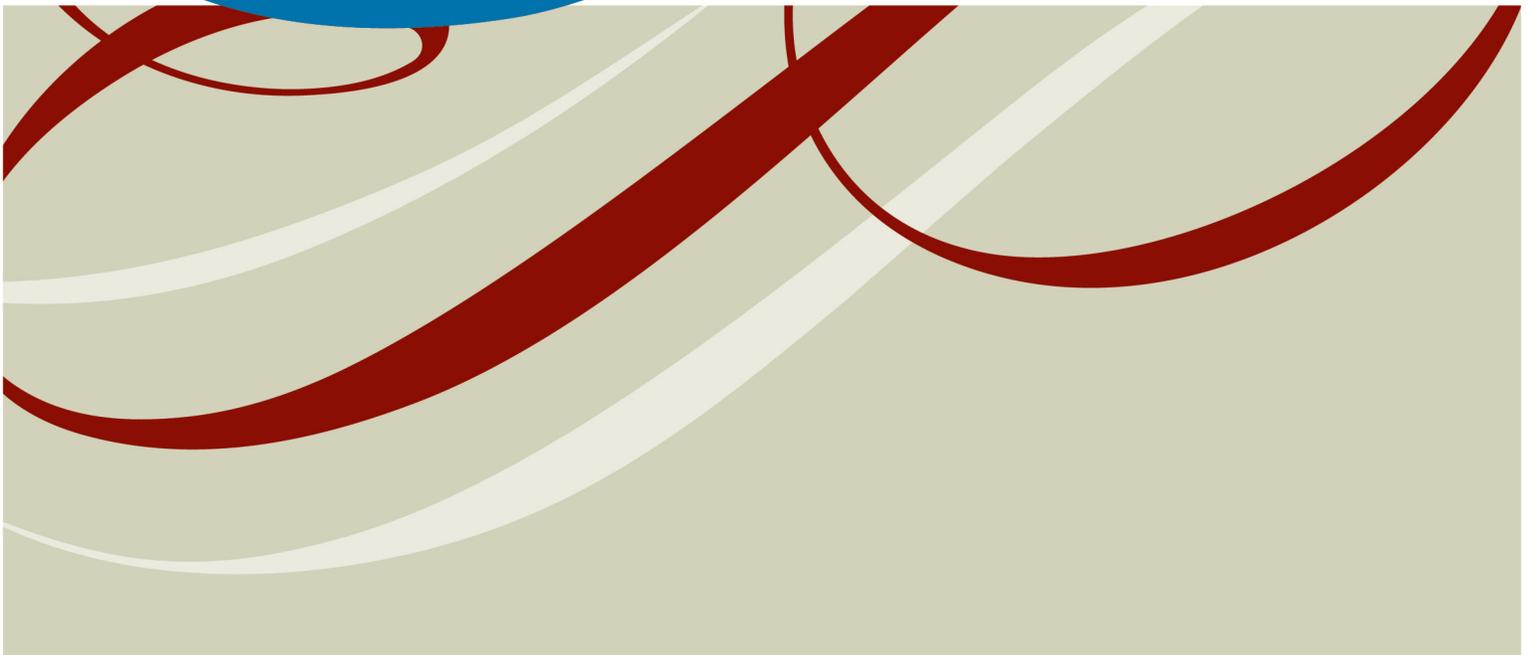




CLARK
COLLEGE **Catalog**
2012-2013



Vision

Extraordinary Education • Excellent Services • Engaged Learners • Enriched Community

Mission

Clark College provides opportunities for diverse learners to achieve their educational and professional goals, thereby enriching the social, cultural, and economic environment of our region and the global community.

Core Themes & Five-Year College Objectives

Focus on Learning

The College will focus on learning as the foundation for decision making with respect to planning, technology, location, instructional methods and successful outcomes. Learners will receive high-quality, innovative education and services that foster student success in achievement of their goals.

- Identify, offer, and support teaching and learning strategies that enhance student success.
- Increase the retention and progression of all students, with emphasis on first generation students.
- Refine and implement continuous improvement planning consistent with the “learning college” model.
- Provide all employees with opportunities for professional development.

Expand Access

The college will offer programs and services that are affordable and accessible to students of the community. Students will be provided flexible options for learning in locations that are accessible and resources that help make their education affordable.

- Provide appropriate support services and reduce procedural barriers to help students enroll in college.
- Expand options to increase the overall affordability of education.
- Expand online services across the college.
- Expand learning options by offering courses and services in various modalities, timeframes, and locations.

Foster a Diverse College Community

The college will provide programs and services to support the needs of diverse populations.

- Recruit, retain, and support a diverse student population and college workforce.
- Provide comprehensive training and educational resources to help all members of the college community interact effectively in a diverse world.

Respond to Workforce Needs

The college will provide educational services that facilitate the gainful and meaningful employment for students seeking training, retraining or continuing education. College programs and services will meet the economic needs of the community.

- Identify and support high-demand workforce needs.
- Identify and support emerging workforce needs, including technology training and green industry skills.
- Establish, maintain, and expand partnerships that support workforce needs.

Enhance College Systems

The College will continually assess, evaluate, and improve college systems to facilitate student learning.

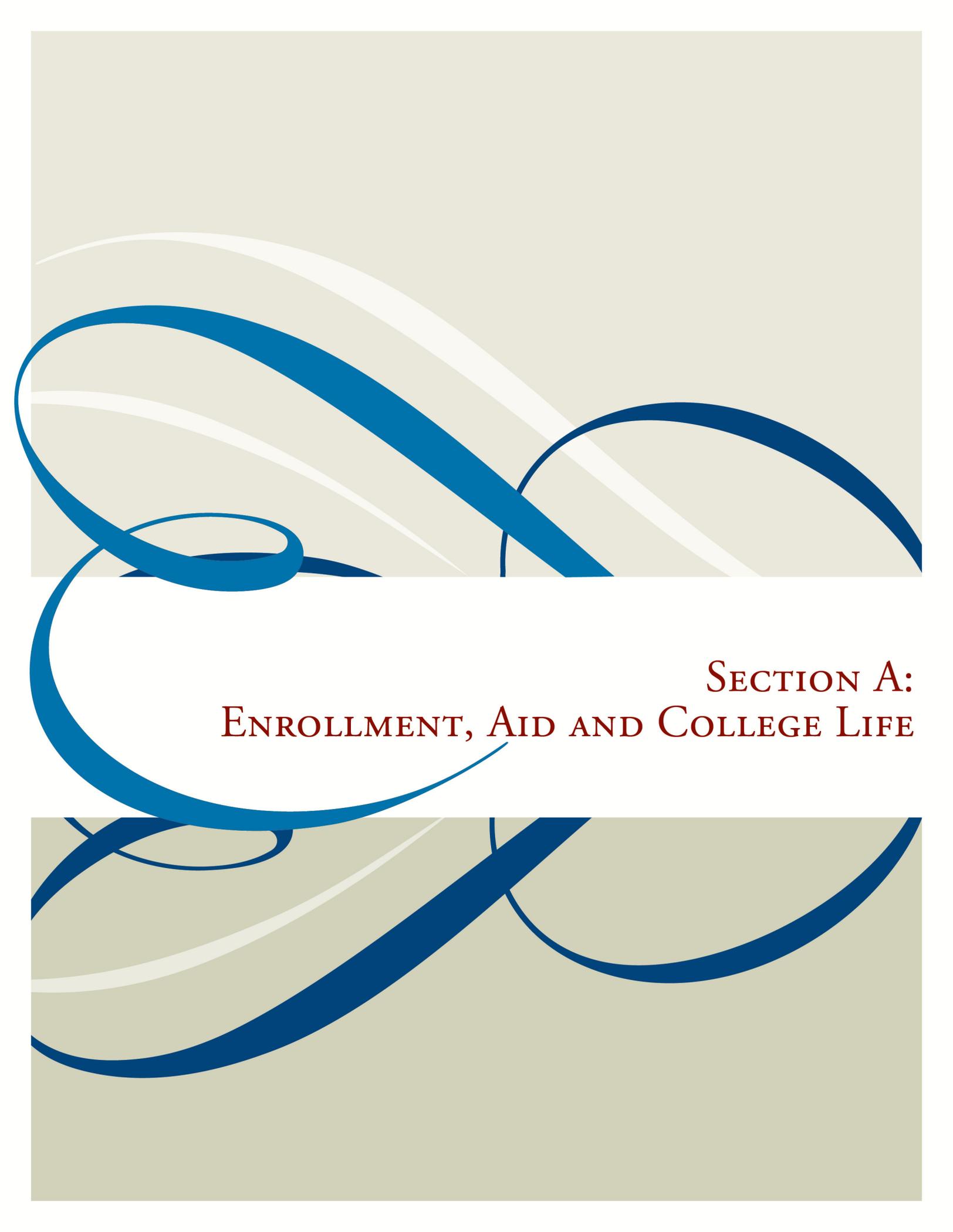
- Improve college infrastructure to support all functions of the college.
- Develop and implement an effective advising system to enhance student success.
- Seek alternate resources, such as grants, philanthropy, and partnerships to fulfill the college mission.
- Refine, communicate, and implement a shared governance system.
- Integrate environmental sustainability practices into all college systems.

Disability Support Services

Clark College and the Disability Support Services (DSS) staff assist those with disabilities in pursuing their educational goals. The DSS staff is committed to assuring Clark College, its services, programs, and activities are accessible to individuals with disabilities. The institution takes seriously its responsibility to follow both the spirit and letter of all pertinent federal and state mandates.

If you are in need of accommodation due to a disability during any of the entry processes to Clark College or for your classes, contact DSS for assistance. Early contact with DSS personnel is essential.

360-992-2314 | 360-991-0901 VP | www.clark.edu/DSS



SECTION A:
ENROLLMENT, AID AND COLLEGE LIFE

SECTION A: Enrollment, Aid and College Life

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Admissions/Welcome Center

360-992-2107

Our Welcome Center is your first step whether you are a new, transfer or returning student. We provide information on how to become a student at Clark College. Our services include assistance with admissions procedures, residency information, campus tours, new student orientation and referral to other services and programs. The Welcome Center is located in the lower level of the Penguin Union Building, PUB 002. New students seeking Adult Basic Education, GED preparation classes or English as a Second Language classes should call 360-992-2741 before December 31, 2012. After January 1, 2013, students should contact the Welcome Center.

All students intending to enroll at Clark College are required to submit an application for admission and pay a non-refundable application fee at least two (2) weeks prior to the start of the term. Refer to the campus calendar for application deadline dates. Application for admission is available on the Clark College website at www.clark.edu/quickstep.

Clark College admits anyone who is eighteen (18) years of age or a graduate of an accredited high school or the equivalent. Applicants who are under the age of eighteen (18) and without a high school diploma or equivalent may be considered for admission. Refer to the Exception to Admissions Policy section on page A4 for further details. Admission to the college does not guarantee admission to a specific area of study. Some programs require additional applications and are limited or competitive-entry programs. See additional information on page A4, under Health Occupations Programs.

The Running Start program has its own set of admission policies and procedures. Please refer to www.clark.edu/runningstart for more information.

Residency classifications for the purpose of tuition rates are determined by length of time a student has been permanently living in the state of Washington. Please refer to the Residency Classifications section on page A5 for detailed information.

New Student Admission

Students with no previous college experience need to submit an admissions application, provide a non-refundable application fee, and complete the COMPASS placement test. The placement test is available on a walk-in basis and is a non-timed, computer-based test. For further information, see the Placement Testing section on page A8. New students are also required to participate in a New Student Orientation before they are allowed to register for classes. For more information on orientation, refer to the New Student Orientation section on page A9.

Transfer Student Admission

Students transferring from other colleges are required to submit an admissions application, provide a non-refundable application fee and complete the COMPASS placement exam if math and/or English was not completed at a previous college or university. Transfer students are required to meet with an advisor before they may register for classes.

If a student intends to use previously earned credits towards a program at Clark College, an official transcript of their college records must be sent to the Admissions Office at the time of application for admission. All admission materials become the property of the college and will not be returned to the student or forwarded to another institution.

Transfer credits are usually accepted by Clark College if such credits were earned at an institution accredited by a regional association recognized by the Council on Postsecondary Accreditation. Students should refer to section B of this catalog for information about non-traditional credits and the process for transcript evaluation.

Former Student Admission

Former Clark College students who are returning to Clark College after an absence of six (6) or more quarters must submit a new admissions application by the application deadline to receive registration access. Former students are required to meet with an advisor before they are allowed to register for classes.

If a student has attended another college since their last enrollment at Clark College and wants to apply those credits to a Clark College program, an official transcript needs to be sent to the Admissions Office. All admission materials become the property of the college and will not be returned to the student or forwarded to another institution.

Re-Entry Student Admission

Students who have attended Clark College within the past five (5) quarters are considered continuing students for purposes of registration and advising. If any contact information has changed since the last enrollment date, students need to submit an Update Form to the Registration Office. Information on registration access dates and times can be obtained online using the student ID number and global PIN. If assistance is needed, contact the Registration Office in Gaiser Hall or call 360-992-2183.

Health Occupations Programs

The following programs are limited and/or competitive-entry and require completion of specific entrance requirements as well as submission of separate applications and application fees:

Dental Hygiene	Medical Assistant
Medical Radiography	Nursing
Pharmacy Technician	Phlebotomy

Refer to the Clark College website at www.clark.edu or section C of this catalog for further information. Because selection criteria are subject to change, the Clark College website is the most current source of information.

Exception to Admission Policy

Students who are 14 to 17 years of age, are enrolled in high school (excluding Running Start students) or home-schooled, and would like to enroll in college classes must apply for Exception to General Admissions. To be considered for Exception to General Admissions the following is needed:

- Completed Clark College Admissions Application;
- A non-refundable admissions application fee;
- Completed Exception to General Admissions Form;
- Read and sign the Campus Environment Statement;
- Submit two (2) School Recommendation forms completed by someone who may verify academic ability (teacher, counselor, etc.). Homeschooled students may use an informed and involved contact other than a family member to complete the School Recommendation forms. Recommendation forms from family members will not be accepted;
- Submit a copy of your high school transcript; and
- Complete all sections of the COMPASS assessment test.

Completed applications must be submitted to Admissions by the published deadlines. In some cases an interview with an Admissions official may be required. Students will be contacted with approval and registration access information after their file has been reviewed.

Application packets are available at high school counseling offices or at the Clark College Welcome Center in Penguin Union Building room 002. Students must apply for Exception to Admissions each quarter until they meet full Clark College admissions requirements. For more information, please contact the Admissions Office at 360-992-2107.

Deadlines

Effective summer quarter 2012, admission-application deadlines will generally be two weeks prior to the start of a new term. For the most up-to-date application information and other resources to begin the enrollment process at Clark College, please visit www.clark.edu/admissions.

International Student Admission

360-992-2390

Clark College accepts qualified international students from around the world who wish to study in the U.S. using a student visa.

To be eligible for admission, applicants must complete a college preparatory program in their home country, and submit the international student application form found on the International Programs Web page at: www.clark.edu/international.

The completed application includes:

- official transcripts from previous high school and college or university,
- a non-refundable application fee
- a courier fee (if outside the U.S.)
- either the TOEFL, IELTS, SLEP, STEP-Eiken test scores, or complete the required level ESL course from an English language school
- a 300-500 word essay.

Applicants must also submit a bank statement with their application to prove that sufficient funds are available for their first year of study. Resources must cover cost of tuition, fees, books, medical insurance, living expenses and transportation.

Medical insurance while in the U.S. is mandatory and will be added to the student's bill each quarter.

International students must enroll for a minimum of 12 credit hours each quarter and are not allowed to work off campus.

Residency Classifications

To qualify for any of the residency classifications listed below, students must be U.S. citizens, resident aliens, refugees or non-immigrant aliens with visa classifications of A, E, G, H, I, K or L.

Residency Classification Definitions

Washington In-State Resident: a person who meets the qualifications of citizenship, has been living in the state of Washington for a minimum of 12 months prior to the beginning of the quarter and has taken actions to declare Washington as their state of permanent residence.

Washington Non-Resident Waiver: a person who meets the qualifications of citizenship and who has been living in the state of Washington for less than 12 months prior to the beginning of the quarter.

Non-Resident: a person who resides outside of the state of Washington and does not qualify for the Oregon Border Waiver; a person who does not submit the required documents for the Washington Non-Resident Waiver, Oregon Border Waiver or Oregon Border Opportunity Waiver.

Non-Resident Refugee: a person who holds Refugee-Parolee status and has established a domicile in Washington before the first day of the quarter.

Non-Citizen: a person who does not meet the qualifications of citizenship, regardless of their length of time domiciled in the state of Washington.

Oregon Border Waiver: a person who meets the qualifications of citizenship and who has been living in one of the 13 qualifying Oregon border counties for a minimum of 90 days prior to the beginning of the quarter.

Oregon Border Opportunity Waiver (HB1474): a person who meets the qualifications of citizenship, was living in a qualifying Oregon border county for at least 90 days immediately prior to moving to Washington state,

has been living in Washington for less than 12 months and has taken all steps to declare Washington as their state of permanent residence.

Qualifying Oregon Border Counties: Columbia, Gilliam, Hood River, Multnomah, Clatsop, Clackamas, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco or Washington.

Applying for Residency Reclassification

Students are granted residency classification based on the information provided on the initial admissions application. The student is responsible for submitting the appropriate application and supporting documentation to have residency reviewed for a reclassification to a new category. Applicants who are not U.S. citizens are required to submit a copy of their permanent resident card or I-94 for reclassification consideration. All residency reclassification requests and documentation are accepted until the 30th calendar day of the quarter. The college has ten (10) business days to review a completed application before making a decision on the reclassification request. If the application is approved, adjustments to the tuition will be applied to the quarter for which the reclassification was submitted. If the application materials are incomplete or received after the 30th calendar date, the request will be reviewed for the following quarter. Residency changes are not retroactive.

Supporting documentation is defined in two categories: proof of physical presence and proof of intent to remain in the state of Washington. Students applying for reclassification will be asked to provide these documents as part of their application materials. Acceptable types of documents are listed below.

- Proof of Physical Presence (one document required, showing at least 12 months)
- Copy of mortgage closing statement for the home in which the student resides;
- Copy of a rental/lease agreement for the home in which the student resides; or
- Copy of rental receipts or mortgage payment receipts for the home in which the student resides.
- Proof of Intent to Remain (three documents required, each showing at least 12 months)
- Valid Washington driver's license;
- Valid Washington voter registration;
- Valid Washington vehicle registration (not title);
- Proof of permanent full-time employment; or
- Verification of checking, savings or safe deposit box accounts located at a bank in Washington

* Note that the Oregon Border Opportunity Waiver also requires proof of Oregon Border county residency in addition to the documents listed above. The Washington Non-Resident Waiver requires one piece of documentation from the list above, while the Oregon Border Waiver requires one piece of documentation from the list above from Oregon rather than from Washington. For additional details, refer to the directions on the application forms.

The forms are available online at www.clark.edu/admissions or by visiting the Welcome Center in Penguin Union Building room 002.

- **Washington Residency Reclassification Form:** used to apply for in-state status by those who did not reside in Washington state for at least 12 months prior to enrolling at Clark College.
- **Border County Opportunity Application HB1474:** used to apply for in-state status by those who qualify under the Oregon Border Opportunity Waiver guidelines.
- **Washington Non-Resident Waiver:** used to apply for the waiver by those who originally applied for admissions with a non-Washington state address and who have since moved to Washington and established a residency.

- **Oregon Border Waiver:** use to apply for the waiver by those who are residing in a qualifying Oregon border county.

Washington residency is governed by RCW.28B-15, RCW 46.16.028, RCW 46.20.021, WAC 250-18 and WAC 208-104-006. Contact the Admissions Office at 360-992-2107 with any questions you have regarding your residency status or how to apply for a reclassification. You can also visit our office in the Welcome Center, located in room 002 of the Penguin Union Building.

HB 1079 (Undocumented Person) Waiver

Effective July 1, 2003, Washington state law (HB1079) was changed to make certain students, who are not permanent residents or citizens of the United States, eligible to pay resident tuition rates. To qualify, students must complete an affidavit declaring they have:

- Resided in Washington state for the three (3) years immediately prior to receiving a high school diploma, and completed the full senior year at a Washington high school, OR completed the equivalent of a high school diploma and resided in Washington state for the three (3) years immediately before receiving the equivalent of the diploma, AND
- Continuously resided in the state since earning the high school diploma or its equivalent AND
- Certify that they will file an application to become a permanent resident of the United States as soon as they are eligible to apply.

Active Duty Military

Active duty military stationed in the state of Washington, as well as their spouses and dependents, qualify as residents for tuition purposes. At the time spouses or dependent family members apply for admission, documentation such as a copy of the military ID card or other appropriate documents must be presented.

Washington National Guard

Washington National Guard members, as well as their spouses and dependents, qualify for resident tuition as long as they are domiciled in Washington.

Veterans Tuition Exemption

Contact the Veterans Affairs Office at 360-992-2112 for information regarding eligibility criteria for the Veterans Tuition Waiver. You must provide the original or certified copy of form DD214.

Tuition Waivers

Most tuition waiver guidelines and charges are set by the Washington state legislature and may change on an annual basis. Those eligible for waiver are listed below, under the departments that serve them.

- Registration Office
- Clark College employee
- Classified state employee or Washington Public Higher Education employee
- Senior Citizen Gold Card
- Admissions Office
- Children of Deceased Law Enforcement Officer or Firefighter
- Native American Waiver
- Washington Non-Resident Waiver
- Oregon Border County Waiver

- Non-Resident Refugee Waiver
- High School Completion Office
- High school completion
- Veterans Affairs Office
- Military personnel
- Running Start Office
- Running Start

Placement Testing

360-992-2648

Placement testing is the first step toward student success. As a community college, Clark serves a very diverse population with classes ranging from adult basic education to university transfer programs. Prior to taking the placement test, students must complete an application for admission and have paid the admissions application fee.

The COMPASS placement test assesses writing, reading and mathematics skills, which helps determine the level of coursework for which the student is prepared as well as readiness for entry into specific programs.

All students entering the college for the first time are encouraged to complete placement testing. Placement testing is required for students wishing to enroll in English, reading, psychology, sociology and/or mathematics courses. Students should also complete their placement test prior to attending a New Student Orientation.

The COMPASS test is not utilized like a traditional pass-or-fail test. There is no “passing” score. Scores indicate areas in which a student is strong and areas for improvement. The information will not be used to deny admission to the college.

Placement testing is offered on a walk-in basis at the Assessment Center, located in the Penguin Union Building, room 015. Testing hours are available at www.clark.edu/assessment or by calling 360-992-2588.

Placement Testing Retest Policy

All students are allowed an initial COMPASS placement test at no additional cost. After receiving the results, students have the following options:

- Enroll in the courses into which they were placed.
- Request a retest using COMPASS examinations. Students may test on any or all of the three (3) modules (writing, reading, or mathematics). The COMPASS test is not a timed assessment. Each module requires a separate fee. Students will then be placed into classes using the higher of the two (2) scores.

Retesting

After the initial retest, students do have the right to retest periodically. Once a letter grade is received, a student may not retest without the explicit permission of the Dean of that area.

COMPASS

Individual modules may be taken once every three (3) months. Each module retest requires a separate fee. Once a student has taken a mathematics, reading, developmental education or English class and received a grade of record (A - F, not W), a retest will not be allowed in that subject area.

Distance Learning Proctoring

The Assessment Center provides proctoring services for students taking distance learning or correspondence courses. There is a fee for this service. Contact the Assessment Center at 360-992-2588 to discuss available proctoring options or visit www.clark.edu/assessment to download a proctor request form.

Foreign Language Placement

The Assessment Center offers placement into foreign language courses for students who already have a background in French, Spanish or German languages. The foreign language placement exams are computer-based and offered on a walk-in basis in the Assessment Center, located in the Penguin Union Building, room 015.

General Educational Development (GED) Testing

Clark College is an official General Educational Development (GED) testing site. The GED tests provide a high school credential to adults who have not graduated from a traditional high school. Participants in GED testing may go on to further their education at Clark College following the examination process or can participate in traditional college classes while completing the GED tests. Refer to page A3 for further information on the Admissions process.

The GED test is designed for adults who are 19 years old or above and who have not received a traditional high school diploma. Examinees who are 16 to 18 years old and wish to take the GED test must provide a high school release form from the school district in which they live.

The GED examinations are given in the following five (5) subject areas:

Writing	Reading
Social Studies	Science
Mathematics	

Successful completion of each of these examinations leads to the issuance of a GED certificate.

In order to begin the process of obtaining a GED, all participants must register for testing with the Assessment Center. Registration is available Monday through Friday between 8:00 a.m. and 4:00 p.m. The Assessment Center is located in the Penguin Union Building, room 015. At the time of registration, each examinee must have the following items with them:

- Government-issued photo identification.
- Receipt of payment of the test fee from the Clark College Cashier or a voucher from the organization sponsoring the test.
- If under the age of nineteen (19), a high school release form.
- Appointments may be made for each GED test subject after completing the mandatory registration session.

GED preparation classes are available through the Clark College Town Plaza Center. Contact 360-992-2741 for further information.

New Student Orientation

All new incoming Clark College students who have never attended college before are required to attend a New Student Orientation session before they are granted access to registration services. Students will gain valuable information about support resources, critical dates and policies, online tools and academic advising at the orientation. They will also register for classes and have the option of participating in a campus tour. To attend, students need to visit the online registration page to sign up for a session. For current information on upcoming dates for specific quarters, visit our website at www.clark.edu/orientationalcalendar.

Financial Aid

The Financial Aid Office helps eligible degree and certificate seeking students obtain funding to meet their educational expenses at Clark College. During 2010-2011, more than 12,000 students were awarded over \$51 million in federal, state and institutional financial aid.

Financial Aid Contact Information

The Financial Aid Office is located in Gaiser Hall.

Clark College	phone: 360-992-2153
Financial Aid Office – GH1 101	e-mail: finaid@clark.edu
1933 Fort Vancouver Way	fax: 360-992-2864
Vancouver, WA 98663-3598	web: www.clark.edu/finaid

Application Process

Students apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov. The annual application process begins in January for the upcoming academic year that begins in July. Students should file their tax returns as early as possible each year so they can complete the financial aid application process and meet established priority processing dates.

The FAFSA is the first step in applying for financial aid. The Financial Aid Office notifies students by email to their student accounts requesting additional documentation required to complete the Clark College financial aid application. All required information must be received by the Priority Processing Dates. These dates are included in the email notification and published online at www.clark.edu/finaid.

All students must turn in the Financial Aid Terms and Conditions form to complete the Clark College financial aid application. Thirty (30) percent of students filing FAFSA will be selected for verification. If the FAFSA is selected for verification, students will also need to submit proof of taxed and untaxed income and the Federal Verification Worksheet. Students may update their FAFSA using the IRS Data Retrieval Tool or submit an IRS Tax Transcript. Students and parents may be required to submit a copy of all W-2's. The Financial Aid Office will notify students if additional documents are required to resolve other discrepancies.

A secondary application is required for Direct Loans. Students may complete the loan application process after receiving their award letter or notice stating they are not eligible for grant funds.

Students that receive an offer to participate in the Work Study program must contact the Work Study Specialist in the Financial Aid Office to activate their award. Funding for this program is limited and offered on a first-come, first-served basis.

Eligibility Criteria

The basic eligibility criteria for federal, state, and institutional financial aid include:

- being a U.S. citizen/national or eligible non-citizen.
- being registered with the Selective Service System if required.
- being admitted to and enrolled in an eligible degree or certificate program (typically one that requires the completion of at least thirty-six [36] credits).
- having a high school diploma or General Education Development (GED) certificate.
- making satisfactory academic progress as defined by the school.
- not being in default on a federal education loan.
- not owing a refund or repayment on a federal grant.

Students must enroll in an eligible degree or certificate program and meet Satisfactory Academic Progress Requirements to be eligible for federal, state and institutional financial aid. Eligibility for aid is determined using information reported on the FAFSA and the student's Expected Family Contribution (EFC). The EFC is determined by a series of standardized calculations known as federal methodology using household size, income and assets.

Financial Aid Awards and Disbursements

Students are notified of their financial aid eligibility after completing their Clark College Financial Aid application by email to their student accounts. All grants and loans awarded are automatically applied to student's tuition and fees before the start of the quarter. If the financial aid award is not sufficient to pay the balance of tuition and fees, the student is responsible for payment of any remaining charges. If the financial aid award exceeds the amount of tuition and fees, the student will have a refund disbursement. Financial aid refund disbursements are issued through the Clark Debit Card starting the first week of each quarter.

The Clark Debit Card

Through a partnership with HigherOne, a financial services company, Clark Debit Cards are issued to all Clark College students who receive financial aid. New students are issued a debit card after completing the Clark College Financial Aid application. The debit card is mailed by HigherOne to the student's home address on file at Clark College. With the Clark Debit Card students have three options for receiving their financial aid refund disbursements:

- Disbursed directly into their OneAccount,
- Automatically deposited into an existing bank account, or
- Issued as a paper check by HigherOne and sent by mail.

More information about the HigherOne Clark Debit Card can be found online at www.clark.edu/cc/finaiddebit.

Census Date

Financial aid checks students' enrollment level on the fifth day of classes (census date). If students have dropped to a lower credit level and/or withdrawn from classes they may owe money back to the financial aid programs. Students may also be subject to financial aid warning or suspension, depending on the number of credits dropped. If students add credits, they may be eligible for additional funds. A new award letter will be sent by email to the student account if the award is revised.

Financial Aid Satisfactory Academic Progress

Students must meet the Financial Aid Satisfactory Academic Progress (SAP) Policy requirements to be eligible for federal, state and institutional aid. Students may be funded for up to two degrees at Clark College as long as they meet all Satisfactory Academic Policy requirements.

There are two standards of Satisfactory Academic Progress that are evaluated at the end of each quarter:

Pace of Progress is measured to ensure that students are taking required courses to complete their certificate or degree program within 125% of the credits required for their program of study. Students must complete the number of quarterly credits within their enrollment level and 65% of all credits attempted cumulatively. All program credits are taken into consideration whether or not aid was received. Grades of F, I, U, W, Y, N and R count as attempted credits but do not count as completed.

Pace of Progression Quarterly Enrollment Level

REGISTERED CREDITS AT TIME OF DISBURSEMENT	GOOD STANDING	WARNING	SUSPENSION
Full Time (12-19 credits)	12 credits	9-11 credits	5 credits or less
3/4 Time (9-11 credits)	9 credits	6-8 credits	5 credits or less
1/2 Time (6-8 credits)	6 credits	N/A	5 credits or less
Less Than 1/2 Time (1-5 credits)	All credits	N/A	Less than all credits

Grade Point Average

If both quarterly and cumulative GPA's fall below 2.0 at the same time, students will not meet the GPA requirements to remain in good standing. In addition, students must have a minimum 2.0 cumulative GPA at the end of the sixth quarter of attendance.

Financial Aid Warning

Students will be placed on Financial Aid Warning for one quarter if:

- They do not complete the number of quarterly credits in their enrollment (see chart above), or
- They complete less than 65% of the cumulative credits attempted for their program, or
- Both quarterly and cumulative GPA's fall below 2.00 at the end of a quarter.

Students on Financial Aid warning are eligible for funding the following quarter of attendance. All Satisfactory Academic Progress Policy requirements must be met the following quarter to avoid financial aid suspension.

Financial Aid Suspension

Students will be placed on suspension if:

- They do not successfully complete at least 6 quarterly credits,
- They are on Financial Aid Warning or Probation and do not complete the number of credits in their enrollment level,
- They are on Financial Aid Warning or Probation and complete less than 65% of the cumulative credits attempted for their program,
- They are Financial Aid Warning or Probation and both quarterly and cumulative GPA's fall below 2.0 at the end of a quarter,
- They do not meet the conditions of their education plan,
- They have attempted 125% of the credits required for their program,
- They have changed their degree program more than two times.

Students placed on suspension are not eligible for future financial aid which includes grants, loans and work-study.

Appeal Process

If extenuating circumstances prevented the student from successfully meeting Satisfactory Academic Progress Policy requirements they may submit an appeal. Appeals must include the following:

1. Satisfactory Academic Progress Appeal Form
2. Typed and signed statement explaining their circumstances, what has changed and the steps they are taking to ensure academic success in the future
3. Supporting documentation confirming the circumstances cited in the appeal statement
4. A current degree worksheet completed and signed by the student's program advisor and the student

Students are limited to two appeals at Clark College. Appeals are reviewed by the Financial Aid Advisory Committee bimonthly and students are notified of the Committee's decision by email to their student accounts. The Committee's appeal decisions are final. If the appeal is approved, financial aid will be reinstated on a Probationary status for one quarter. The Committee has the authority to specify courses, as well as the number of total credits approved for continued financial aid funding. The Committee may also specify an education plan that must be followed in order to maintain financial aid eligibility. Aid will be reinstated based on the availability of funding at the time the appeal is approved.

Financial Aid Probation

If a student's appeal is approved by the Financial Aid Advisory Committee, their financial aid will be reinstated on a probationary status. The Committee may specify an education plan or other academic restrictions. To avoid losing eligibility while on Probation students must meet all Satisfactory Academic Progress Policy requirements and all conditions of the approved appeal.

Financial Aid Reinstatement

Students that choose not to appeal, have exhausted the two appeal limit, or whose appeal is denied may submit a Request for Reinstatement when they have attempted and complete sufficient credits to achieve a 65% cumulative pace of progress and 2.0 cumulative GPA. If all Satisfactory Academic Progress criteria have been met, the request may be approved. Aid will be reinstated based on the availability of funding at the time the request is approved and the student may remain on a financial aid Probation status. As part of the approval, students may also be restricted to specific academic conditions and must remain in good academic standing maintain continued eligibility.

Title IV Funds Policy

Students who receive financial aid are subject to the Federal Return of Title IV Policy. This policy is effective when a student completely withdraws from all credits. Students that attend through the 60% point of the quarter earn 100% of their aid and will not owe a repayment. Students that do not attend through the 60% point in the quarter may owe a repayment to the financial aid programs. The student's withdrawal date is used to calculate repayment and is determined as follows:

Official Withdrawal: The date the student began the institution's withdrawal process by officially notifying the institution in writing of their intent to withdraw.

Unofficial Withdrawal: The last date of attendance, defined as the last date of participation in an academic related activity, reported to the Financial Aid Office by the instructor or the midpoint of the period of enrollment. The latest date will be used to calculate the repayment.

Return of Funds

Funds are returned to the following Federal sources in order of priority, as established by Congress:

1. Unsubsidized Direct Loans
2. Subsidized Direct Loans
3. Direct PLUS Loans
4. Pell Grants
5. SEOG

There are six basic steps to the formula for calculating the amount of funds that must be returned to the Title IV programs:

1. Determine the date of withdrawal and percentage of payment period attended by the student
2. Calculate the amount of Title IV aid earned by the student
3. Compare amount earned and amounts disbursed to determine amount unearned
4. If amount earned is greater than amount disbursed, determine late disbursement
5. If amount earned is less than amount disbursed, determine amount of Title IV aid that must be returned
6. Calculate portion of funds to be returned by institution and student

Both Clark College and the student have specific responsibilities under this policy. Students who owe a repayment due to the Return of Title IV funds must pay or make satisfactory arrangements to pay their debt before regaining eligibility for additional financial assistance.

Requirements of 34 CFR 668.22 is available in the Clark College Financial Aid Office or on the Clark College website at www.clark.edu/pdf/financial_aid/FederalReturn.pdf

Washington State Need Grant Repayment Policy

Students receiving Washington State Need Grant (SNG) are subject to the Washington State Need Grant repayment policy as defined by the Washington State Higher Education Coordinating Board. This policy is effective only if a student completely terminates enrollment by withdrawing or failing all credits.

Students who remain enrolled through at least 50% of the payment period (quarter) are considered to have earned 100% of the State Need Grant received and will not owe a repayment. Students who officially or unofficially withdraw before the 50% point of time will owe a repayment. The amount of the repayment is based on the date of official withdrawal or the last date of attendance as documented by the student's instructors. Students will be billed for the amount of State Need Grant considered unearned less 50%.

Financial Aid Programs

Financial aid consists of grants, tuition waivers, work-study, student loans and scholarships. The financial aid programs available to students at Clark College include the following:

Grants

Federal, state and institutional grants are available for undergraduate students and are awarded based on the information received from the Free Application for Federal Student Aid (FAFSA).

The Federal Pell Grant is based on financial need for students who have not earned a Bachelor's degree from a domestic or foreign university recognized by the United States. Eligible students may receive the Pell Grant up to 18 full-time quarters. Award amounts are determined based on information from the FAFSA and are adjusted proportionately for less than full time enrollment.

The Federal Supplemental Education Opportunity Grant is based on exceptional financial need. The grant is available to students enrolled in six credits or more per quarter.

The Washington State Need Grant is based on family income and awarded to students that are state residents. Funds are limited. Students may receive the grant for a maximum of eight full time quarters at Clark College. Grant amounts are adjusted proportionately for less than full time enrollment.

Clark College Grant and Tuition Waivers are awarded to eligible Washington residents enrolled in at least six credits per quarter based on financial need. Funds for both programs are limited and are awarded on a first come, first served basis. Tuition waivers can be used to pay tuition but not fees, books or supplies.

Scholarships

Funding for scholarships comes from local high schools, employers, local, civic and community organizations, foundations and private sources. The Clark College Foundation is one of the largest community college foundations in the country and offers several scholarships to Clark College students each year.

The scholarship application process is separate from the application for federal and state financial aid. Deadlines for scholarship applications are generally in late winter or early spring for the following academic year. Scholarship information and applications can be found online at www.clark.edu/admissions_fin_aid/fin_aid/scholarships

Student Employment

Federal and state work study programs are available for students enrolled in a minimum of six credits per quarter. Work study is not the same as a grant; funds must be earned through student employment. State work study funds are limited to Washington residents. Students should contact the Work Study Specialist in the Financial Aid Office for assistance in applying for employment.

Student Loans

An education loan is a form of financial aid that must be repaid, with interest. Student loans are taken out in the student's name to be used for educationally related expenses such as tuition, housing, books and other costs associated with going to college. Clark College participates in the Federal Direct Loan and PLUS Loan programs.

There are two types of Federal Direct Loans: subsidized and unsubsidized. Subsidized loans are loans in which the government subsidizes the interest that accrues while the student is in school. Unsubsidized loans are loans in which the student is responsible for the interest which accrues while they are in school and during the grace period.

Student loans require a secondary application process that the student can complete after receiving their award letter. To be eligible, students must be enrolled in at least six credits per quarter. To request a loan, students must complete three application steps:

1. Master Promissory Note: An agreement from the student to the terms of the loan.
2. Entrance Counseling: An online questionnaire about student rights and responsibilities under the loan programs.
3. Clark College Direct Loan Application: The student's authorization to process a loan.

Federal PLUS loans are available to parents of dependent undergraduate students enrolled in at least six credits. Additional information about both types of loans can be found online at www.clark.edu/admissions_fin_aid/fin_aid/loans

Sponsored Programs Assistance

360-992-2307

Clark College Sponsored Programs staff, located in the Financial Aid office, serve as a central point of contact for current and future students attending Clark under agency sponsorship (e.g., Dislocated Workers, Labor and Industries, WorkSource affiliates, etc.). The staff serves as a liaison between students, sponsoring agencies, and other appropriate Clark personnel.

Admissions assistance and information referrals are provided for students on sponsored programs. There is an administrative fee in addition to tuition for agency-sponsored accounts.

Opportunity Grant

360-992-2039

Opportunity Grant helps eligible students get started in training programs and prepares students for high-demand occupations. The grant pays for tuition, mandatory fees, and required books and supplies. The student must be a Washington state resident, meet income guidelines, and be seeking an approved Opportunity Grant program.

Worker Retraining

360-992-2274

Worker Retraining offers services to unemployed workers who are interested in upgrading their skills or learning new skills. Worker Retraining provides current information on occupations and training options at Clark College. Financial assistance for the costs of tuition, books and fees is also available to eligible unemployed.

WorkFirst Financial Aid

360-992-2038 or 360-992-2195

Tuition assistance for TANF parents. Training is directly related to employment and wage progression. WorkFirst Work Study Provides TANF recipients a work-study job on campus while they take classes to improve their skills.

Veteran Educational Benefits

360-992-2711 or 360-992-2112

Clark College is approved for VA Education Benefits under Chapters 30, 31, 32, 33, 35, 1606, 1607, VRAP (Veterans Retraining Assistance Program) and TA (Tuition Assistance). Eligible veterans and dependents are granted certification for approved certificate and degree programs, and can receive benefits only for those courses that are applicable toward their chosen objective. Eligible students must report any change in their classes to the Veterans Affairs Office.

Students receiving educational benefits are expected to maintain satisfactory academic progress. In the event academic probation is imposed, students are given the next quarter to demonstrate significant improvement; otherwise, their educational assistance will be terminated. In the event of academic suspension, recertification will be allowed only upon approval from the Department of Veterans Affairs.

- Recipients of benefits should consult with the Veterans Affairs Office before withdrawing from a class.
- Veterans are required to notify the Veterans Affairs Office of their last day of attendance at the time of withdrawal.
- Veterans cannot receive benefits for classes that are audited.
- Veterans benefits will be reduced for “I” (Incomplete) grades. However, they will be reimbursed when the incomplete is removed and a new grade has been assigned. Incomplete grades must be completed as stated by College policy.
- Veterans must report any change of address directly to the Department of Veterans Affairs. Information is and phone numbers can be obtained from the Clark College Veterans Affairs Office or online at the GI Bill website: www.gibill.va.gov

Clark College is a member of SOC (Service members Opportunity Colleges). Credit for Military Experience may be granted toward general elective credit for experience gained from military training. Military training and experience may also be granted for some specific vocational program coursework determined by the Program Department. Military training and experience granted for Credit recommendations are based on the American Council on Education (ACE) guidelines. Clark College does not post military experience credit as a specific course. The transcript will reflect the credits under the heading of “Military Experience” with the total number of credits granted. Military experience is a non-traditional credit program and is subject to the restrictions listed in the Non-Traditional Credit Policy section of this catalog. Contact the Veterans Affairs Office in the Financial Aid Office at Clark College for further information.

Scholarships

Scholarship funding is made possible through the generous support of individuals and organizations. Quite often, those who received scholarships while they were in college wish to give back to today’s students. These donors believe in the importance of education and recognize Clark College as the premier institution of higher learning in Southwest Washington. Because of their generosity, more than 100 scholarships are available to students who qualify and submit the required application form(s).

Some scholarships have basic qualifications, such as academic, athletic or artistic talent. Others are available to students who are interested in a particular field of study, who are members of an underrepresented group, or who come from certain geographic areas.

Generally, applications are made available online in mid-December and are due to the Financial Aid Office in mid-April for the following academic year. A number of transfer scholarships, designed to assist with tuition expenses at four-year schools, are also available to students graduating from Clark.

Scholarship applications, qualification criteria and helpful tips and instructions can be found on the Clark College website at www.clark.edu/scholarships.

Career Services

360-992-2902

www.clark.edu/student_services/employment

online job database system: www.clark.edu/nextjob

Career Services provides the resources and strategies for choosing a college major; developing career plans; finding jobs, internships and volunteer opportunities; and making successful career transitions. Resources include a computer lab, an extensive library of books and videos, and one-on-one appointments with career and employment specialists. Services are free and open to students, former students and the general public.

Career Center resources:

- Assistance in assessing personal skills and interests to explore career options or select a course of study.
- Detailed descriptions of more than 1,000 occupations and industries.
- Information about employment outlooks, labor trends, wages and job preparation.
- Databases of universities, technical training programs and scholarships in Washington, Oregon and the United States.
- Strong Interest Inventory and Myers-Briggs Type Indicator assessments including a career report and 90-minute small group interpretation of results.

Employment services and work experience opportunities for students:

- An online job database system, NextJob, on the Career Services website: www.clark.edu/nextjob
- Institutional hire job referrals for on- and off-campus student employment opportunities.
- Local and statewide full- and part-time job listings.

Job search and employment preparation services:

- Assistance with resume writing, cover letters and interviewing skills.
- Job- and career-related workshops and resources.

Employer services:

- On-campus recruiting table, free of charge.
- Free advertisement of job and internship vacancies.
- Multiple career events each year, including targeted job fairs and employer guest speakers discussing various career fields.
- Opportunities to serve on college advisory boards.
- Equal opportunity guidelines are followed and applicants are referred on a non-discriminatory basis for all possible co-op, internship, volunteer or job placements.

Cooperative Education/ Internship Work Experiences

360-992-2391

Clark College recognizes the value to students of actual experience in a work environment and has developed a nationally recognized program which allows credits to be earned for that experience under controlled conditions.

The purpose of Cooperative Education Work Experience (co-op) is to provide on-the-job experience that complements students' academic career goals and that furnishes an opportunity for career exploration. Co-op involves the faculty, student and employer in determining learning objectives and evaluating the student's progress in achieving those objectives. Students may use internship experiences to test their interest in a field or their fit in the work environment of a particular industry.

Equal Opportunity guidelines are followed and students are referred on a non-discriminatory basis for all possible cooperative education, practicum, clinical experience or job placements.

Volunteer & Service-Learning

360-992-2447

www.clark.edu/cc/volunteer

The purpose of the Volunteer & Service-Learning (VSL) program is to help members of the college community find appropriate volunteer and/or service-learning opportunities that foster growth and compliment students' academic

goals. Students may use volunteer experiences to test their interest in a field or their fit in the work environment of a particular industry.

Volunteers act in recognition of a need and their efforts can be done on a one-time or ongoing basis. Service-learning is a method of education which combines community service with academic instruction as it focuses on critical, reflective thinking and civic responsibility.

Advising

360-992-2345
www.clark.edu/advising

The mission statement for Clark College advising is:

By providing accurate, timely and consistent information, Advising personnel at Clark College, in collaboration with faculty: guide, support, and help students develop lifelong learning skills, assist students as they plan and achieve their educational and career goals, and work with students to establish a lasting relationship with Clark College.

As a result of working with advising personnel, students will:

- Develop an understanding of their own educational pathway so that remaining classes and timeliness of completion are clear and accurate.
- Develop an educational plan that addresses academic, career, and life goals.
- Develop an awareness of their own personal responsibility within the advising process.
- Develop skills to successfully navigate and use campus services and tools.
- To ensure the communication of accurate program information to all Clark students, advising is required for all new students to Clark and at certain checkpoints during degree or certificate progress.

The advising system at Clark College is an educational process that assists students as they pursue educational, career, and life goals. It is expected that students will build relationships with advisors during their time at Clark College and, over the course of their degree or certificate, will attain the objectives listed above.

eLearning

eLearning@clark.edu

360-992-2654 or 877-748-2654

www.clark.edu/eLearning

What is eLearning?

eLearning at Clark College provides options to students that give them the opportunity to attend classes beyond the traditional on-campus experience.

What type of classes and programs are offered?

Clark College offers a combination of eLearning courses that fulfill the requirements for an AA general transfer degree. The two specific options are the Weekend Degree Program (WDP) and the option to complete your AA online. Please see www.clark.edu/eLearning for more information about WDP and AA Online. eLearning classes are offered in the following format:

- **Online** classes have activities that are completed in the online environment. Most online classes require no face-to-face contact between the students and the instructor, however there are a few exceptions so always check the class schedule. There is an eLearning fee associated with these courses in addition to tuition. The section numbers of online courses follow the format: “#DL.”
- **Hybrid** classes combine traditional face-to-face classroom time with the flexibility of online learning. Typically, the on-campus time is reduced by 20 percent to 80 percent. The rest of the coursework

is done online. There is an eLearning fee associated with these courses in addition to regular tuition. The section numbers of hybrid courses follow the format: “#H#.” Weekend Degree Program classes are also delivered in the hybrid format, but the section numbers follow the format: ‘#’WD.

- **Web-Enhanced** is a course that requires access to web-based tools on a regular basis but whose online activity does not replace any face-to-face seat time. Web-based tools may include but are not limited to: The eLearning LMS supported by eLearning, websites, or web-based e-books and software. These are not eLearning classes, and there is no eLearning fee associated with these courses.
- **Weekend Degree Program** leads a selected cohort of students through a specific course of study towards a general transfer Associate in Arts degree. Cohorts begin every Fall. Courses are hybrid format, meeting 3 weekends throughout the quarter. For more information, see the Weekend Degree Program.

How do I start an eLearning class?

eLearning classes follow the same campus policies and procedures as face-to-face classes; therefore, they have the same start and end dates, unless otherwise noted. This means students are expected to log into the Learning Management System (LMS) the first day of the quarter for class instruction.

Please visit the eLearning website at www.clark.edu/eLearning for up-to-date answers to frequently asked questions, technical help and information about how and where to log into your class.

Technical Requirements and Support

To see if you have appropriate technology for eLearning courses go to: www.clark.edu/eLearning/tech-reqs.php.

For technical support, eLearning maintains a tech support site: www.smartpenguin.org/smartpenguin. Students can find solutions to current technical issues, video tutorials, test taking tips and other helpful information. Feel free to contact our office via e-mail or phone for further assistance or to answer any questions.

Registration

360-992-2183

You’ve submitted your application. You’re ready to take The Next Step and register for classes. At Clark College, we offer registration online, and in person at the Registration Office located in Gaiser Hall. If you are a new student or a student re-entering Clark College, you will be emailed information regarding meeting with an advisor and registering for classes after completing an application for admission and submitting it to the Admissions Office.

After your first quarter of attendance at Clark College, your registration access date/time can be found online prior to the beginning of the registration period for each quarter. A notification will be e-mailed to your Clark College e-mail address to let you know when registration access dates/times will be posted online each quarter.

Registration access dates/times are based on cumulative credits earned at Clark College and additional credits transferred from accredited institutions.

Specific information on dates, deadlines, and hours of service can be found on the Clark College website at www.clark.edu.

Online Registration Services

The following services are available online for current Clark College students:

- Enrollment verification
- Change of address
- Registration access date/time
- Schedule Planner
- Student Global PIN change
- Student schedule
- Unofficial transcript
- Waitlist inquiry
- Degree Audit (online degree audit)
- Online Registration

You may conveniently enroll online each quarter by taking advantage of online registration. You will need your SID (student identification number), registration PIN and your global PIN. You will receive information each quarter regarding your registration PIN from the Advising Department. By using online services you can also use our Schedule Planner tool to plan your class schedule. Schedule Planner allows you to select the most convenient times available for you to take classes and view available options at those times. Schedule Planner also offers a list of alternative classes and verifies your eligibility for classes requiring a prerequisite. Printing your class schedule and changing your address, phone, or e-mail are other convenient options available online at www.clark.edu.

Degree Audit

Clark College offers an online degree audit service to current Clark College students. By using Degree Audit, you are able to obtain an unofficial evaluation of credits you have earned at Clark College and credits you have transferred from other accredited institutions by submitting official transcripts during the admissions process. Degree Audit will evaluate your progress towards a Clark College degree and/or certificate. For an official evaluation of earned credits, students must submit an Evaluation Request to the Credential Evaluations Office in Gaiser Hall.

Registration Policies

Credit Maximum

Students may register online or in person for 0-20 credits. Students who wish to add excess credits (i.e., 21 or more) must make an appointment and obtain written permission from an advisor or counselor to register over the credit maximum.

Late Registration Policy

Beginning the third day of the quarter and through the tenth day of the quarter (eighth day in summer), students are required to submit a late registration petition with the instructor's signature to enroll. The Late Registration Petition form is available at the Registration Office. Exception: When a course begins late in the quarter or is designated as variable credit (this includes weekend courses), instructional days are counted beginning the first day of the class. The Late Registration Policy is applied based on the length of the class.

Students who register after the tenth (10th) day of the quarter (eighth day in summer) will be charged a \$50 per-class Late Registration Fee. A student whose enrollment change falls under the following circumstances will not be charged:

- Students who need to make a level change. Example: Moving from MATH 095 to MATH 089.
- Students who need to make a section change. Example: Moving from an online course to a face-to-face course.
- Students who wish to enroll in classes that are set up as continuous enrollment as opposed to sequential.
- Students who are enrolling in late-starting classes that start after the tenth (10th) day of the quarter.
- Students enrolled in ABE/GED/ESL courses.
- Students utilizing the Clark College employee tuition waiver.
- Students who enroll in zero (0) credit courses.
- Students who feel their situation warrants an exception to this fee may request to have this fee waived by completing an Exception to the Late Registration Fee request form. The final decision on any exceptions will be made at the discretion of the Registrar.

First Day Attendance Policy

It is essential that students attend the first class meeting of their courses. If a student is unable to attend due to an emergency or conflict of a serious nature, he or she should contact the instructor. If the instructor is not designated

in the class schedule, the student should contact either the Division Office or the Office of Instruction who will direct the student appropriately. Students who fail to attend one (1) or more sessions during the first five days of the quarter may be dropped from the class. Students who miss any classes during the first five (5) days are responsible for verifying their enrollment status.

Note: Students dropped by the college during the first five (5) days of the quarter will receive a full refund of tuition and fees, if due.

Dropping a Class and Withdrawal from the College

Students who find it necessary to withdraw from classes must do so formally. The withdrawal is effective on the date a Change of Registration form is processed at the Registration Office. The dates for dropping and/or withdrawing from classes are listed online.

- A class officially dropped before the tenth day (eighth day in summer) of the quarter will not be entered on the student's transcript.
- After the tenth day and through the eighth week of the quarter, classes formally dropped at the Registration Office will be posted to the student's transcript with a withdrawal grade of "W" assigned to the class.
- No withdrawals will be accepted after the last day of the eighth week of the quarter.
- For courses with unusual start and end dates, no withdrawals will be accepted after 80% of the class meetings have occurred.
- If the student decides not to attend, it is his/her responsibility to withdraw from all classes.
- No withdrawals will be accepted for a class that has ended.

Late Withdrawal Appeals: Students unable to withdraw by the end of the eighth week of the quarter due to extenuating circumstances should contact the Instructional Dean's office by the end of the last scheduled class day.

Administrative Withdrawal: circumstances for consideration of an Administrative Withdrawal are:

- Verifiable error on the part of a Clark College employee.
- Miscommunication on the part of a Clark College employee that prevents a student from taking appropriate action.
- Documentable misinformation about college policies or procedures.

Please contact the Registration Office for information on petitioning for an Administrative Withdrawal.

Auditing a Class

Any student may enroll in a course on an audit basis with instructor's written consent and upon payment of the regular tuition and fees. Audit students will be exempt from examinations and will not receive college credit; however, the instructor may require reasonable attendance and class participation. To change from credit to audit or audit to credit, the student must complete a Change of Registration form at the Registration Office. Such changes may be made only with the written consent of the instructor and must be processed by the end of the tenth day of the quarter (eighth day in summer).

Student Attendance Status

Clark College considers twelve (12) or more credits to be a full-time student. The definition of "full-time student," however, may vary for certain agencies, such as Veterans Services, Financial Aid, Social Security, and insurance companies.

Student attendance status for Financial Aid and GI Bill is as follows:

Financial Aid

Full-time student	12 credit hours
Three-quarter-time student	9-11 credit hours

Half-time student	6-8 credit hours
Less than half-time student	1-5 credit hours

GI Bill attendance status for fall, winter and spring quarters

Full-time student	12 credit hours
Three-quarter-time student	9-11 credit hours
Half-time student	6-8 credit hours

GI Bill attendance status for summer quarter

Full-time student	8 credit hours
Three-quarter-time student	6-7 credit hours
Half-time student	4-5 credit hours
Less than half-time	3 credits or less

Absence

Students are expected to attend classes in which they are enrolled. Attendance may be a factor in grading for a course. When unavoidable absence occurs, it is the obligation of the student to notify the instructor and arrange for the make-up work deemed necessary by the instructor.

Change of Address

In order to ensure receipt of important information, students must notify the college of any change of address. Offices that should be informed include Admissions, Financial Aid and Registration. Student Update forms are available at the Registration Office and online at www.clark.edu.

Credit by Challenge

360-992-2183

Students who have previously taken courses and have established a transcript record at Clark College are able to challenge a course. If a student believes that previous experience has provided them with the competencies essential for passing a course, they might request to challenge that course. Students may not be currently enrolled in the course they wish to challenge and may not challenge courses if they have completed a course with a higher degree of difficulty. Some courses may not be challenged. Courses and grades resulting from the challenge process will be posted to the student's transcript record at the end of the quarter in which the exam is proctored. Please contact the appropriate instructional department for more information.

Special Projects (Independent Study)

360-992-2183

To provide for challenging learning experiences beyond regular course work, more advanced students may arrange to undertake special projects. With the approval of the division chair and under instructor supervision, students are given an opportunity to plan, organize, and complete independent study projects. Special projects are listed in the department course description section of the catalog as course number 290. No more than fifteen (15) credits in special projects will be allowed toward the associate in arts degree. Students are responsible to ensure that the credits earned do not exceed this limit and that credits earned will be accepted for transfer. Students should contact the instructor to register for a special projects course.

Tuition and Fees

At Clark College, we help people make their dreams come true. We offer excellent classes taught by outstanding faculty. In addition to affordable tuition, we also offer scholarships and financial aid opportunities to help you take the next step.

Tuition rates, based on residency requirements, are set by the Washington state legislature and the State Board for Community and Technical Colleges and are subject to change. The per-credit amount charged reflects three (3) fee collections: tuition, services and activities fees, and building construction fees. Students at Clark College have ap-

proved additional supplemental fees that support matriculation and facilities/on-campus parking charges, construction of a student union, and technology resources. Current tuition rates and information about tuition waivers are listed in each quarterly class schedule. Tuition and fees must be paid within ten (10) business days of registration prior to the start of the quarter. Beginning the first day of the quarter, tuition and fees must be paid on the same day as registration. Students who have not paid by that time may be dropped from their classes. Clark College offers a tuition and fee payment plan (STEPP) for students who need to fit their tuition expenses within their monthly budget. Information on STEPP can be obtained at the Cashiers Office.

Some class offerings such as customized training, community education, and others are not supported by state funds. There is no tuition charged for these self-support classes, however, there is a course fee. All students registering for these classes must pay the fee amounts published in the quarterly class schedule or other college publications.

Matriculation and Facilities/On-Campus Parking Fee*

Students are charged per credit hour to a maximum of twenty (20) hours for matriculation and facilities/on-campus parking.

Student Union Fee*

Students are charged per credit hour to a maximum of twenty (20) hours to support the construction of a student union (PUB).

Technology Fee*

Students are charged per credit hour to a maximum of twenty (20) hours for technology such as computer software, computer replacement, and technical lab assistance to maintain open computer labs. Other examples of technology available to students are online registration and student kiosks, and online services featured on the Clark College website.

*These fees are refundable on the same basis as tuition.

Additional Fees

Some courses may require payment of lab or course fees in addition to or instead of tuition. These fees help the college defray expenses not funded by the state. Fees are used for specific course expenses such as breakage, hazardous waste management, consumable supplies, special materials, minor repairs, and materials that become the property of the student.

Textbooks and Supplies

The Clark College Bookstore stocks required textbooks and supplies as requested by classroom instructors. Also available are many supportive suggested materials to assist in the student's class preparation and participation. The store staff understands the financial impact of class materials, thus provides the lowest prices for new textbooks of any college in this region and diligently pursues and stocks as many used textbooks as possible, partly supplied from a quarterly student book buyback program. In addition, the store offers a number of other affordability services for Clark students, such as textbook and calculator rentals, hold services, peer-to-peer exchange and much more. To obtain current book and supply lists and receive assistance in cost estimating, please visit the Clark College Bookstore on the main Clark College campus or visit their website at www.clarkbookstore.com.

Financial Obligations of the Student

Students are expected to meet their financial obligations to the college. Clark College staff will act in accordance with adopted procedures and, if necessary, initiate legal action to ensure that collection matters are brought to a timely and satisfactory conclusion. Collection fees will be added to debts owed the college.

Admission to or registration with Clark College, conferring of degrees, or issuance of academic transcripts, and other college services, will be withheld for failure to meet financial obligations.

Refund Policy

A student who officially withdraws through the Registration Office may receive a refund of tuition and certain fees. The complete Refund Policy is printed in the college information section of this catalog and in the quarterly schedule of classes.

Students who believe extenuating circumstances justify an exception to the policy may complete a Petition for Exception to the Refund Policy Form at the Registration Office. Exceptions may be granted for extreme, extenuating, urgent and unavoidable circumstances that prevent a student from withdrawing within the established guidelines. Exceptions may be granted for documented sudden medical emergencies that prevent a student from continuing successfully in their courses, death of an immediate family member or being called to active military duty. Requests for exceptions to refund policy are accepted through the eighth week of the quarter. Students receiving Financial Aid may not qualify for exceptions to the refund policy due to federal financial aid guidelines.

A separate refund policy applies to classes offered by Basic Skills (ABE, GED and ESL), Community Education and Mature Learning classes. For more information see the Adult Basic Education, GED, English as a Second Language, Community Education or Mature Learning sections of the class schedule.

Grades and Records

Grade Legend

Clark College uses the grading symbols listed below.

The grades A, B, C, and D may include pluses (+) and minuses (-).

A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0
I	Incomplete
N	Audit
P	Pass
S	Satisfactory (credit only, no grade points)
U	Unsatisfactory (no credit, no grade points)
W	Official withdrawal
Y	In process/re-register

Grade Information

Students enrolled in credit classes may obtain grade information approximately eight (8) days after the end of each quarter. Students may access grades at a college student information kiosk or through the Clark College website: www.clark.edu.

Grade Point Average (GPA)

Grade points are calculated by multiplying the number of credit hours for each course by the decimal grade appropriate for the grade earned. The quarterly GPA is computed by adding the total number of grade points for the quarter and dividing by the total number of credits attempted in courses that received a letter grade.

Credit Hrs. Attempted	Grade	Grade Points Earned
5	B+ = 3.3	16.5
3	C = 2.0	6.0
8 Total Credits		22.5 Total Grade Points

Dividing 22.5 by 8 computes to a grade point average of 2.81.

The student's cumulative grade point average may be obtained by adding the total number of grade points for all quarters and dividing by the total number of credits attempted in the courses that received a letter grade.

Incomplete Grades

An incomplete grade indicates that the student performed at a passing level, completed most of the course requirements, and intends to make up the missing work. Incomplete grades may be assigned at the discretion of the instructor if the student is unable to complete the work because of illness or other circumstances beyond the student's control. When assigning an incomplete grade, the instructor must provide a date for which the work must be completed, and the grade that will be entered on the student's transcript if the work is not finished on time. The incomplete grade remains on the student's transcript until the specified date or until the student completes the required work and the instructor submits an amended grade to the Registration Office.

In Process/Re-register

Students enrolled in variable credit or continuous enrollment courses may be given a "Y" grade if their effort is not sufficient to grant one (1) credit. Students must re-register and pay tuition to continue the course. A "Y" grade may also be used for courses which last more than one (1) quarter.

Pass/No Pass

Students may request to enroll in certain courses on a pass/no pass basis. Students must contact the Registration Office for information about courses approved for this option. No more than thirty (30) credits taken for pass/no pass will be allowed toward the associate in arts degree, associate in science degree, the associate in applied science degree, or the associate in applied technology degree. Students must earn a grade of "C" or better (2.00 GPA) to be given a "Satisfactory" grade in a pass/no pass course. An "Unsatisfactory" grade will be posted for students earning less than a "C" grade. Students planning to transfer to a university should contact that institution to determine their policy for acceptance of pass/no pass courses.

Repeating a Course

Courses may be repeated to improve a grade earned, but credit will be granted only once. When students notify the Registration Office that a course has been repeated, the symbol "R" will be placed next to the first grade, and only the last grade earned will be used in calculating the grade point average. No courses may be repeated more than twice (defined as two repeats in addition to the original enrollment). The Clark College repeat policy does not apply to transfer coursework. Transfer coursework is not included in the Clark College GPA calculation and is not included in honors designation.

Students who plan to transfer to another institution should be aware that their GPA might be recomputed. Repeated courses will be received in accordance with the institution's own requirements and policies. Students receiving financial aid or Veterans benefits, or those participating in athletics, should consult those offices prior to repeating a course. Benefits or eligibility may be reduced or lost due to course repetition.

Setting Aside Past Record

Qualified students may set aside a previous substandard academic record that does not reflect their true ability at Clark College. Setting aside does not expunge the previous record, but places a “set aside” notation on the student’s transcript, marking the term from which the college will calculate a new GPA for determining probation, eligibility, or honors at graduation. Students may not count credits set aside to fulfill credit requirements for graduation. Students should understand that the record to be set aside includes all courses taken before the date selected by the student.

Students may set aside a previous record if:

- They have earned fifteen (15) credits at Clark College beyond the quarter to be set aside.
- They have a 2.50 GPA at Clark College for these credits.
- The work to be set aside is at least one (1) year old.

Petition forms are available at the Credential Evaluations office in Gaiser Hall.

Caution: Although Clark College makes provisions for setting aside past records, students should not assume that other colleges to which they transfer will compute the GPA in the same manner. Only the Clark College record can be set aside; the college cannot set aside records from other colleges. Financial aid students will still be subject to federal regulations that require that all attempted credits be counted toward completion of an initial degree.

Grade Change/Error

Students who believe an error has been made in recording their grades should contact the Registration Office. If a recording error has been made, it will be corrected. If an error was not made when grades were posted, the student should contact the instructor. Grade changes are made at the discretion of the instructor. A “Change of Grade Form” must be signed and submitted to the Registration Office by the instructor. Grade changes and corrections made for Veterans and Financial Aid recipients must also be reported to the Office of Veterans Affairs and/or the Financial Aid Office.

Grade changes must be made no later than the end of the second quarter following the quarter the student attended the class.

Grade Change/Academic Appeal Policy

An academic appeal refers to a claim by a student that a specific grade assigned to the student by an instructor is the result of an arbitrary or capricious application of otherwise valid standards of academic evaluation or to a student’s claim that the instructor has made an arbitrary or capricious decision or taken an arbitrary or capricious action which adversely affects the student’s academic standing.

The student must file a written complaint within ninety (90) calendar days after termination of the course. The appropriate instructional dean or supervisor may suspend this rule only under exceptional circumstances such as extended illness, sabbatical leave, or absence of one or both parties involved in the complaint. Grade appeal process forms are available through the instructional deans’ offices or the Office of Instruction.

Students having complaints relative to academic performance evaluation should follow the steps below:

Step 1: The student should complete a grade appeal process form and discuss the complaint with the instructor. If the complaint is not resolved, proceed to Step 2.

Step 2: The student should speak to the appropriate division chair. The division chair must notify the student within fifteen (15) working days of the resolution after the meeting with the student. If the student is not satisfied with the resolution, the student should proceed to Step 3.

Step 3: The student will provide a written statement describing the nature of the appeal to the instructional dean or supervisor. A meeting will then be scheduled with the student, the instructional dean or supervisor, and the instructor to discuss the appeal. The instructor will receive a copy of the student’s

written material prior to the meeting. A decision by the dean or supervisor will be made within fifteen (15) days of the meeting. The decision by the dean or supervisor will be final and cannot be appealed further.

Confidentiality of Records

Clark College has adopted procedures in compliance with the Family Educational Rights and Privacy Act (FERPA) as amended, and maintains confidentiality of student records. College employees are trained to comply with information release guidelines.

With few exceptions, parties outside of school officials will not have access to student records without the written consent of the student. Clark College will not release a student's record to a parent/ guardian without the student's written request. This policy is in effect regardless of the student's age or financial dependency upon the parent or guardian. The college may release student directory information without student consent. Directory information includes student name, student address, student e-mail, date of birth, major field of study, quarters of attendance, degrees and awards received, participation in activities and sports, and weight and height of members of athletic teams. Additional information regarding FERPA is found in section G of this catalog. In compliance with state law (SB5509) Clark College no longer uses the student's Social Security Number for the purpose of student identification. This law is intended to add additional protection to the student's identity.

The college will assign all students a Student Identification Number (SID). Students are required to use their assigned SID to access their records, register for classes, pay tuition, etc. For a copy of SB5509 or for additional information regarding this process, you may contact the Registration or Admissions Office.

Transcripts

A transcript of each student's educational record is maintained in the Registration Office. An official transcript is signed by the Registrar, has the college seal attached and is provided in a sealed envelope. To obtain an official transcript, students should go online to www.studentclearinghouse.org to place an order. Transcripts will be mailed to any college, university or other agency upon receipt of the request within seven (7) business days. There is also a rush transcript option available. There is a fee for all official transcripts. For current fee information please go to our website or call 360-992-2287. Transcripts will not be faxed.

Students may obtain an unofficial transcript through the Clark College website, www.clark.edu; at student information kiosks; or by visiting the Registration Office in Gaiser Hall.

Vice President's List

A Vice President's List will be compiled at the end of each academic quarter to recognize outstanding student achievement at Clark College. In order to qualify for the list a student must earn at least twelve (12) credits of graded course work and a GPA of 3.75 or higher. The credits from courses in which a student receives an "I," "S," or "Y" will not count toward the twelve (12) credit minimum. Students who qualify for the list will receive a congratulatory letter from the Vice President of Instruction and a notation will be made on the student's transcript.

Academic Standards Policy

Clark College is committed to the academic success of its students. The primary purpose of the Academic Standards Policy is to quickly identify and alert students with low academic achievement and provide those students with assistance to improve their academic performance.

This policy applies to all students. Some individual college programs or funding sources may have additional requirements. Students in these programs should contact the appropriate program advisor for information regarding these requirements or check with an academic advisor if they have questions.

Students must earn a cumulative GPA of 2.0 or better to remain in good academic standing. The following consequences will be imposed progressively for students who are not in good academic standing:

- Academic Concern if cumulative GPA falls below 2.0 AND quarterly GPA is less than 2.0.
- Academic Intervention if cumulative GPA remains below 2.0 for the second consecutive quarter* AND quarterly GPA is less than 2.0.
- One (1) Quarter Academic Dismissal if cumulative GPA remains below 2.0 for the third consecutive quarter* AND quarterly GPA is less than 2.0.
- Four (4) Quarter Academic Dismissal if cumulative GPA remains below 2.0 for the fourth consecutive quarter* AND quarterly GPA is less than 2.0.

*Consecutive quarter is defined to mean the next quarter in which a student is enrolled even if a break in time occurs.

Note: Students will remain at currently assigned academic standard level if cumulative GPA remains below 2.0 but quarterly GPA reaches 2.0 or better.

Academic Standards Procedure

Academic Concern

If your cumulative GPA falls below 2.0 AND you did not achieve a quarterly GPA of 2.0 or better, you will be placed on Academic Concern.

- You will be sent an e-mail to your Clark student e-mail address that offers information about the Academic Standards process and tells you what happens at each stage.
- You will also receive a listing of college resources and a recommendation to take advantage of support and services available to you.

Academic Intervention

If your cumulative GPA remains below 2.0 for the second consecutive quarter AND you did not achieve a quarterly GPA of 2.0 or better, you will be placed on Academic Intervention.

- You will be required to attend either a group workshop or register for a specific Human Development class.
- You will be required to complete an academic success plan that outlines steps for improving your academic performance.
- You may lose the ability to carry a full course load.

One (1) Quarter Academic Dismissal

If your cumulative GPA remains below 2.0 for the third consecutive quarter AND you did not achieve a quarterly GPA of 2.0 or better, you will be placed on One (1) Quarter Academic Dismissal.

- You will be blocked from registering for classes while on One (1) Quarter Academic Dismissal.
- You will be sent an e-mail to your Clark student e-mail address that outlines the Appeal Process for One (1) quarter Academic Dismissal. To have a successful appeal, you must submit all documents requested including documentation of circumstances over which you did not have control. Decisions will be made and communicated to you before the first day of classes.
- If you do not appeal or if your appeal is denied, you will be administratively withdrawn and tuition will be refunded.
- You will also receive information about how to Return from One (1) Quarter Academic Dismissal. You must complete a Request to Return to College Form no later than six (6) weeks before the first day of classes for the quarter in which you plan to return. You will be notified about the process, expectations

and time deadline to make an appointment to see a designated staff member. You must prepare a written plan in advance that includes the following items for your discussion with the staff member:

- o Your short-term educational goals
- o Specific plans to overcome barriers and improve your academic progress
- o Proposed course schedule

The designated staff member will review the plan with you and outline specific conditions you must meet for return from One (1) Quarter Academic Dismissal. Once the plan is finalized, you will return to Academic Intervention status.

Four (4) Quarter Academic Dismissal

If your cumulative GPA remains below 2.0 for the fourth consecutive quarter AND you did not achieve a quarterly GPA of 2.0 or better, you will be placed on Four (4) Quarter Academic Dismissal.

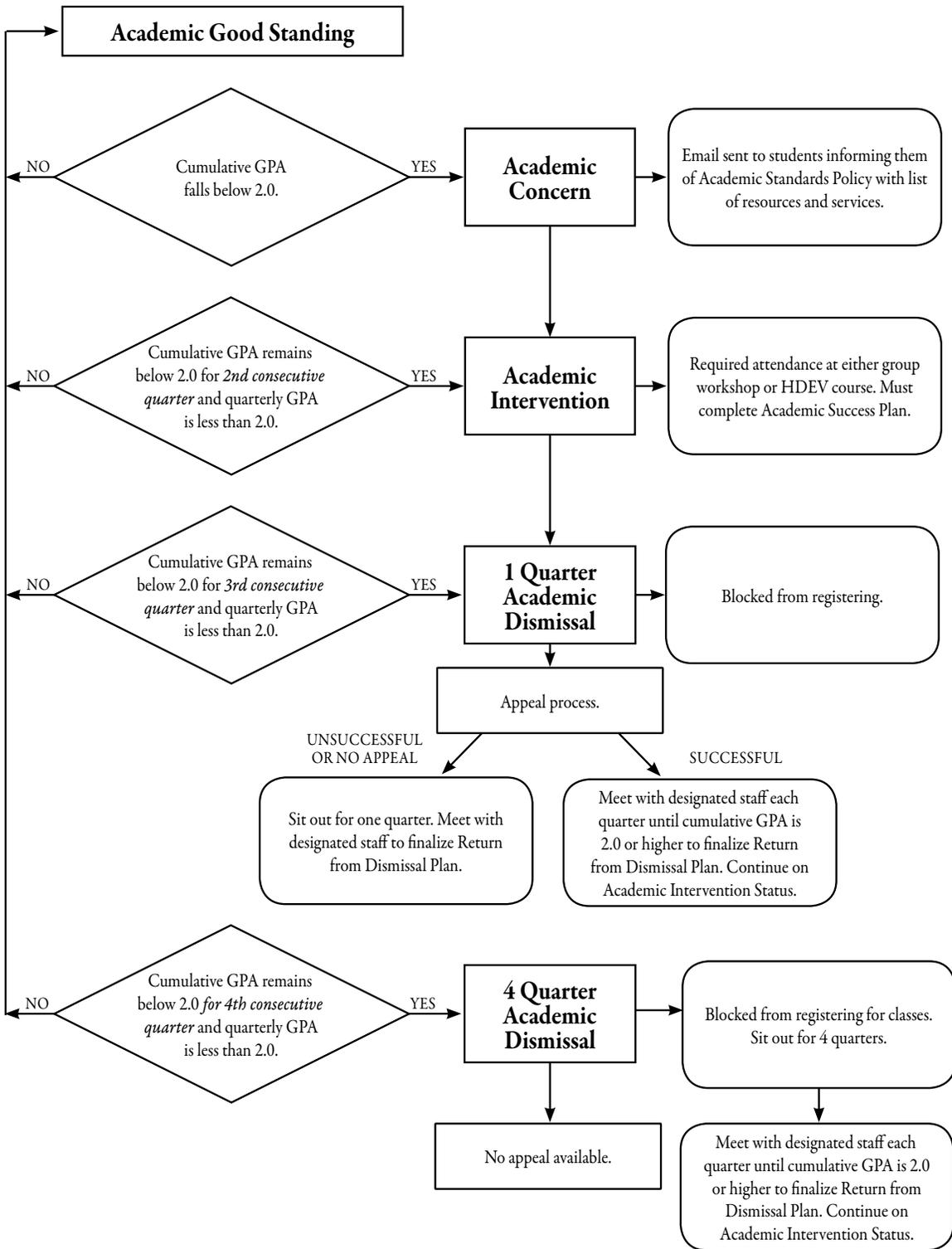
- You will be blocked from registering for classes while on Four (4) Quarter Academic Dismissal.
- If you enrolled for classes before academic dismissal status, you will be administratively withdrawn and tuition will be refunded.
- There is no appeal process.
- You will receive information about how to Return from Four (4) Quarter Academic Dismissal. You must complete a Request to Return to College Form no later than six (6) weeks before the first day of classes for the quarter in which you plan to return. You will be notified about the process, expectations and time deadline to make an appointment to see a designated staff member. You must prepare a written plan in advance that includes the following items for your discussion with the staff member:
 - o Your short-term educational goals
 - o Specific plans to overcome barriers and improve your academic progress
 - o Proposed course schedule

The designated staff member will review the plan with you and outline specific conditions you must meet for return from Four (4) Quarter Academic Dismissal. Once the plan is finalized, you will return to Academic Intervention status.

Academic Standards Professional/Technical Programs

Students in certain professional/technical programs must receive grades of “C” or better in program core courses to advance in the program class sequences. Students should refer to the department description in section C of the catalog for further information.

Academic Standards Procedure Chart



College Life

Archer Gallery

360-992-2246

Archer Gallery has been exhibiting fine art in Southwest Washington since 1978, consistently presenting an impressive list of artists and exhibits. Focusing on Northwest and Washington artists, the gallery also exhibits works by national artists. Featuring both established and emerging talents, the cultural, social, and ethnic diversity of the region is expressed in the exhibition schedule.

Archer Gallery is located on the lower level at the south entrance of the Penguin Union Building and features 2,000 square feet of exhibition space. All exhibits are free and open to students and the community. Support for the Archer Gallery is provided by the Associated Students of Clark College (ASCC), the Clark College Foundation, the college and donations from individuals. Archer Gallery is wheelchair accessible.

Athletics

Clark College Penguins

360-992-2691

Clark College is a member of the Northwest Athletic Association of Community Colleges (NWAACC), which coordinates and regulates both men's and women's athletics in Washington and Oregon. Clark sponsors intercollegiate teams for women in volleyball, cross country, basketball, track and field, softball, and soccer; and for men in soccer, cross country, basketball, baseball, and track and field. Students interested in intercollegiate sports should contact the Athletics Department.

Penguin Athletic Club

360-992-2301

Through individual, family, and corporate memberships, the Clark College Penguin Athletic Club (PAC) provides funding for athletic scholarships, special events and recognition for student athletes, coaching enhancements, and general support for all eleven (11) Clark teams competing for the Penguins. Membership in the PAC provides special discounts on both alumni and PAC events, free admission to all home regular season games, and the opportunity to utilize the Clark College Thompson Fitness Center for a nominal fee per quarter or per year. For more information, please contact the PAC office.

Bulletin Boards

360-992-2336

The majority of college bulletin boards are used for college or departmental information only. All bulletin boards are identified with the assigned posting monitor. The posting monitor is responsible for postings. The complete bulletin board guidelines and a listing of campus bulletin boards and their classification may be obtained from the Facilities Services Office located in the Facilities Services building (FST).

Signs or posters may not be placed on wood, glass, painted, plastered or metal surfaces. Only thumbtacks may be used on bulletin boards. Staples are not permitted. Materials placed improperly will be removed by college personnel.

Event Scheduling

360-992-2713

The hub of campus life is the Student Center in Gaiser Hall. This facility provides space for dances, concerts, dinner theater, lectures, and other college/community events. College rooms are available for small and large meetings of students, staff, and community groups. A use agreement will be sent to those contracting for college facilities outlining responsibilities and privileges. Space utilization cannot conflict with regularly scheduled classes or activities, and space is assigned on a first-come, first-served basis. There is a charge for use of college facilities by off-campus groups. To arrange for the use of any college space, contact the Event Scheduling Office.

Student Life

360-992-2441

The Office of Student Life (SL) coordinates programs and activities that enhance the educational experience of a diverse student population and foster the intellectual and personal development of students on campus.

Student Life services include student activities, student clubs, student-funded programs and student government. The Office of Student Life and the Associated Students of Clark College (ASCC) plan and present more than 50 events each year. Some activities include: Welcome Week, O.S.W.A.L.D. Awards (Outstanding Students With Academic Leadership and Development), and Spring Thing.

In addition to these services, SL oversees the ASCC offices, open-use student computers, the club room, the game room and a student-use lunchroom featuring a refrigerator, a microwave, and free coffee Monday through Thursday mornings. For more information on any of these services, contact the Office of Student Life, located in the Penguin Union Building room 160.

Student Clubs and Programs

Student clubs and programs provide students with an opportunity to combine various aspects of academic, vocational and/or personal learning and allow students to apply the skills and responsibilities of leadership by becoming involved in the campus and community. With more than 45 student clubs being chartered each year, student organizations may have an instructional, national, cultural, political, activity and/or religious focus.

Among the most active student organizations at Clark College are the Swing Club, Engineering Club, Photography Club, German Klub and Clark Manga and Anime Club, to name a few. With more than 30 student-funded co-curricular and extra-curricular programs on campus, almost all students can find a program to develop personally and educationally as well as earn college credit for participation. Student programs include Athletics, The Independent, Model United Nations, Phoenix, Phi Theta Kappa Honor Society, Theatre, Health Services, Intramurals, Orchestra, Vocal Music, and many more.

Student Government

Recognized by the Board of Trustees as the representative body of Clark College students, the Associated Students of Clark College (ASCC) consists of a seven-member Executive Council and a four-member Activities Programming Board (APB). APB conceptualizes, plans and coordinates events offering social, cultural, educational and family entertainment opportunities for students. As a whole, student government keeps students informed about administrative or legislative policies that directly affect the student body.

All enrolled students are members of ASCC and are thus eligible to participate in events, serve as student government officers, or participate in campus governance through representation on Clark College committees. Student government leaders gain valuable leadership experience through leadership training, decision making, fiscal organization and conflict management.

Student Publications

The Independent

Working at *The Independent* offers students hands-on journalism experience. Working with one or more aspects of the newspaper (writing, editing, photography, layout, advertising, and business management) provides an introduction to the journalism profession as well as a means of earning credit. Some staff positions are paid. *The Independent* serves as a major communication link between students, student government, the faculty, staff and administration.

Phoenix

Phoenix, Clark College's literary and arts magazine, is funded by ASCC to encourage the creative efforts of Clark College students. All Clark College students registered in the immediate spring, summer, fall or winter quarters prior to

publication may submit fiction, poetry, flat artwork and photographs of three-dimensional work. Under the direction of the faculty advisors from English and from Art, staff members practice budgeting, marketing, writing, editing, judging and layout skills. Volunteer student staff members are welcome; some paid student staff positions exist.

Student Services

Bookstore

fax: 360-992-2862

www.clarkbookstore.com

360-992-2149

email: bookstore@clark.edu

The Clark College Bookstore, owned and operated by the college, is located in Gaiser Hall and stocks required textbooks and supplies as requested by classroom instructors. The staff vigorously supports student interests by maintaining the lowest possible price for textbooks of any college in this region; by diligently stocking as many used textbooks as possible; and by providing e-book and rental options whenever feasible. The store also sponsors a book buyback each quarter during finals week, allowing students to recover cash for textbooks that may be utilized in future quarter(s).

The Bookstore strives to support the interests of the entire community by selling computer accessories, software (special student pricing on many items), logo items, apparel, gifts, cards, convenience food items, various reading (both for class and for relaxation) and reference materials including many test preparation items, and an extensive health reference and supply section. Reloadable Bookstore gift cards are available for purchase for student shopping convenience. Services provided include personal faxing, personal package shipment, notary public, special orders, sale of Clark College theatre tickets, USPS stamps, C-Tran bus passes, payment for parking and student ID tags, an e-commerce site to place Web orders and holds, supply support for college departments, and computer access for college community use.

Payment options at the store include Bookstore gift cards, cash, check with appropriate identification, and Visa, MasterCard or Discover charge cards. Refunds are granted with the required documentation and within a specified time frame. Returns require a receipt and the length of time allowed for a return is determined by the type of item being returned (specifics available in the Bookstore).

Child and Family Services

360-992-2179 Toddler and School-Age

360-992-2393 Preschool

The Child and Family Studies program is located at the north end of the Clark College main campus. Child care and early education services with family support options are available to Clark College students, faculty, staff and the local community. Child care services are available for children twelve (12) months and walking through ten (10) years of age. Contact the program for more information or to arrange a tour. Services are available from 7:30 a.m. through 7:00 p.m. Monday – Thursday, 7:30 a.m. to 5:30 p.m. on Fridays. Evening hours vary due to sufficient enrollment between 7:00 to 9:00 p.m. Quarterly waiting lists are maintained to determine the evening schedule.

Computer Services

Computer Labs

Students enrolled in credit classes may use the open computer lab facilities at Clark College. Students are required to use their college-supplied network account to access computer resources in the labs.

Open computer labs are available at the following locations:

- Anna Pechanec Hall, Rm. 102
- Bauer Hall, Rm. 101
- Cannell Library, Rm. 203
- Scarpelli Hall, Rm. 135 and Rm. 023
- Clark College at WSUV, Rm. 202
- Clark College at Columbia Tech Center, Rm. 203 and Rm. 219

Wireless Network Access

Students may use personal computers to access the Internet and online services available through the Clark College website using the college wireless network. Wireless access is available in most college facilities. A network account is required to use the wireless network.

Computer Proficiency: A Statement to Students

Students at Clark College, in order to succeed here and in the communities outside the college, need to be familiar with and capable of using computers and computer software. Both upper division college work and the requirements of the workplace demand such skills. Many Clark College faculty will require students to access class materials on the Internet, use a word processor, e-mail and databases as part of regular course activities.

Students need to determine which computer skills are appropriate to their areas of study and take positive steps to acquire and use them early. In order to facilitate appropriate student access to computers and computer software, the college provides classrooms, labs, course work and library access where students can learn about and use these tools.

Students should contact their instructors, the college library, the Office of Student Affairs, the Associated Students of Clark College (ASCC), or the Advising and Counseling offices to find out what computer resources are available and when they can be accessed. Advisors, counselors, and faculty can assist students in choosing appropriate courses to help them achieve computer proficiency.

Counseling and Health Center

360-992-2614

Located in the Health Sciences Building, the Counseling and Health Center supports student success by providing a range of professional counseling and medical services that are both affordable and conveniently available on campus. Counselors assist students with career exploration, academic issues and personal/mental health needs. A nurse practitioner is available on a limited basis for fee-based medical services.

Dental Hygiene Clinic

360-992-2158

High-quality dental care is provided at a reduced fee by students under the direct supervision of licensed dental hygienists and dentists. Adults or children, five (5) years of age or older, are selected for care based on the educational needs of the students. Services provided may include exams, x-rays, scaling and polishing, sealants, fillings, tooth whitening, diet analysis, and personalized preventive education. Free screenings are available by appointment.

Disability Support Services

360-992-2314—Voice

www.clark.edu/DSS

360-991-0901—Video Phone

Clark College and Disability Support Services (DSS) staff assist those with disabilities in pursuing their educational goals. DSS staff is committed to ensuring that Clark College, its services, programs, and activities are accessible to individuals with disabilities. The institution takes seriously its responsibility to follow both the spirit and the letter of all pertinent federal and state mandates.

Clark College recognizes that traditional methods, programs, and services may need to be altered to assure full accessibility to qualified persons with disabilities. DSS is the primary focus of efforts by Clark College to assure nondiscrimination on the basis of disability. Through DSS, qualified persons with disabilities can address their concerns regarding attitudinal or procedural barriers encountered, as well as any need for academic adjustments and/or auxiliary aids to ensure equal access. DSS will provide information and auxiliary aids or services, as well as serve as a resource to the campus community in striving to make Clark College both an accessible and hospitable place for persons with disabilities to enjoy full and equal participation.

Fitness Center

360-992-2808

The Thompson Fitness Center, located in the O'Connell Sports Complex (OSC), is free to students currently enrolled in an HPE, fitness trainer or PE class. The following individuals are eligible to use the fitness center during open times for a quarterly or annual usage fee, which is payable at the Cashier's Office:

- Current full- and part-time Clark students;
- Clark employees, their spouses and children sixteen (16) years old and older;
- Penguin Athletic Club members, sixteen (16) years old and older; and
- Alumni Association members, sixteen (16) years old and older.

Completion of fitness center basics, circuit fitness and/or weight training class is recommended prior to using the fitness center.

Food Service

The Clark College Culinary Arts Department offers a variety of food services to the campus and community including a bakery, dining room, and food court in Gaiser Hall adjacent to the Student Center. All food is prepared by cooking and baking students who are training for jobs in the food service industry. These services are available during the normal academic quarter, except during final exam week. Snacks, light meals and beverages are also available from vendors in Bauer Hall, Joan Stout Hall and the Foster/Hanna lobby during the academic year. The Bookstore maintains a wide variety of convenience food and beverage items. Vending machines and microwaves can also be found in many locations.

Health Insurance

A low-cost private health insurance plan is available to all Washington state community college students through Summit America Insurance Company (www.summitamerica-ins.com/wsc). Students must be taking at least six (6) credits to qualify and may enroll for injury or injury/sickness coverage. An option to enroll dependents is also available. Brochures are available at the Counseling and Health Center in the Health Sciences building or at the Cashier's Office in Gaiser Hall.

Health insurance is required for all international students and a separate plan is available. International students are advised to discuss their health insurance options with the Office of International Programs.

Housing

Campus housing is not available. While the college does provide a housing referral bulletin board, located in central Gaiser Hall, it does not assume the responsibility for screening rentals.

Note: International Programs does work with international applicants to secure housing for them and to place them in one of the following options:

- An apartment building shared with domestic and international students from the International Air Academy (two- or four-bed apartments);
- An apartment with single or double rooms close to campus; or
- A host family arrangement.

Please contact International Programs for details.

Legal Consultation

360-992-2382

Free, one-time legal consultation is available to students from a local attorney who is a Clark College alumnus. Twenty-minute consultation appointments are offered once a week through fall, winter, and spring quarters and can be arranged through the Office of Student Affairs, Gaiser Hall 215 (second floor). Please call to schedule an appointment.

Library

library.clark.edu

360-992-2151

Clark College Libraries provide resources to support the educational mission of Clark College. Located on the main campus Cannell Library provides students, faculty and staff with books, movies, and CDs. Cannell Library also has group study rooms and computer labs. Students attending classes at Columbia Tech Center can visit the Information Commons located on the second floor of the building in Room 219. Students are encouraged to ask librarians at either location for assistance using the wide range of in-print and online resources. Library faculty offer a variety of instruction sessions and workshops.

Through Summit, a shared catalog that combines the holdings of academic libraries in Washington, Oregon and Idaho students also have access to books, DVDs, videotapes, government documents and more. Direct online borrowing and an efficient courier service allows students to obtain books quickly and easily.

From the Libraries' website (library.clark.edu), Clark College students, faculty and staff have online access 24/7 to thousands of resources, including electronic books, full-text journals and 64 electronic databases. Consult the library website or call 360-992-2151 for hours of service and other library information.

Office of Diversity and Equity

360-992-2355

The Office of Diversity and Equity is a realignment of services at Clark that deal with issues of diversity and equity. The function of the Office of Diversity and Equity is to support the accomplishment of the goals set out in the Diversity Plan adopted by Clark College in 2009. In addition, the Office of Diversity and Equity is equally committed to serving historically disadvantaged communities as they navigate Clark--as well as the entire Clark community as it engages in conversations around power, privilege, inequity, and diversity.

A Diversity Center has been established at Clark College. Its primary function is to be a welcoming and safe place for the entire Clark community--students, faculty, staff, and community members--to learn about and engage with issues of diversity, inclusion, power, privilege, inequity, and social justice. In addition, the Diversity Center serves as a resource on related issues, provides training and educational programs, hosts speakers and performers, and offers opportunities to connect with those who have felt disconnected in the past.

Parking and Traffic Rules

360-992-2133

Traffic and parking regulations at the college are authorized by the Board of Trustees and codified under the Washington Administrative Code. The enforcement of parking and traffic regulations is the responsibility of the Security/Safety Department.

Student parking on the Clark College campus is limited to open parking spaces. Open parking spaces are identified as lined spaces without any special labels. No permit is required to park in open parking. The Security/Safety Director is authorized to designate various parking areas on the campus by the posting of signs or pavement markings. Restricted parking areas include faculty/staff (F/S) parking, visitor parking, and disabled person parking. No one may park in these areas without the proper permit or other authorization.

Drivers of vehicles on campus shall obey all regulatory signs, including stop signs and directional arrows, and shall comply with directions of campus security officers in the control of traffic and parking.

Any violations of the parking and traffic rules and regulations of the college may result in issuance of a monetary citation by the Security/Safety Department. Vehicle impounding, immobilization or transcript hold may result if vehicles are parked improperly or if fines are not paid.

The Security/Safety Department works continually toward safe and effective parking lot use. Concerns, suggestions and ideas for meeting the challenges of managing campus parking are always welcome. Students should contact the Security/Safety Department in Gaiser Hall for a complete copy of the Clark College Parking and Traffic Rules and Regulations, or for a copy of the Parking Survival Guide.

Public Transportation

Clark College is served by C-Tran, the Clark County Community Transit System, at the main campus, Clark College at WSU Vancouver, and Town Plaza. The Clark College main campus is currently served by three (3) bus lines which link the college to all parts of the city of Vancouver, Clark County, and to Portland, Oregon.

To encourage and enable transit ridership, the college funds and supports the BackPASS program. Through the BackPASS program, all registered Clark College students can purchase a BackPASS endorsement for their student body identification cards. The BackPASS will afford the student unlimited access to C-Tran service in Clark County. Students may receive only one subsidized BackPass per quarter. To facilitate use of the BackPASS, bus schedules, maps and other transit information can be found in several locations. C-Tran regularly participates in new student orientations and hosts information booths on the main campus.

Van service is now available at a reduced rate to students with disabilities. Check with C-Tran for more details by calling 360-695-8918 (voice) or 360-695-2760 TTY.

Additional information about the BackPass program can be obtained from the Security/Safety Department in Gaiser Hall.

Security/Safety Department

360-992-2133

Clark College Security/Safety works to provide a safe and secure environment in which members of the college community can pursue their educational goals and professional commitments. The department staff protects life and property, provides service and assistance to students, staff, and community members, provides fair and easy access to college facilities and assures compliance with campus regulations. The Security/Safety Department strives to offer proactive protection services to the college community. The department responds to the changing needs of the college by stressing prevention above response, planning above reaction, education above enforcement, and service above all.

The Security/Safety Department staffs a walk-up and phone-in service and information center, open extended hours during quarter sessions and for limited hours during breaks. Any time during open campus hours, security assistance may be contacted by coming to the Security-Information desk in Gaiser Hall, or by pressing the campus security number button.

The Security/Safety Department can provide informational and directional assistance, aid to stranded motorists, including jumpstarts and lockout service, security escorts across campus, crime prevention advice, and other general assistance to students and other members of the college community. The Security-Information Department also issues student body identification cards, and provides all information required by the Clery Act.

The Security/Safety Department works cooperatively with the Vancouver Police Department, the Clark County Sheriff's Office, and the Washington State Patrol in emergency, dangerous, or volatile situations and in criminal investigations.

Student Ambassadors and the Campus Visit Program

360-992-2078

Student Ambassadors are current Clark College students who are here to assist you with the admissions and orientation process of starting at Clark. Student Ambassadors are also available to take you on a campus tour so you can begin to become familiar with campus. Taking a campus tour with a current student is a great way to hear the student perspective of being at Clark.

Student Discounts

A list of merchants that offer discounts can be found at the Security/Information Office in Gaiser Hall.

Student ID Cards

A student photo identification card is available to students for a minimal fee. The ID card provides free or discounted admission to events and may offer discounts at local businesses.

Tutoring and Writing Center

360-992-2253

The Tutoring and Writing Center, located in Hawkins Hall room 102 and AA4 room 106, offers tutoring services free of charge to all registered Clark College students. Tutors recommended by faculty provide help in many subject areas. Students are encouraged to visit the Tutoring Center early in the quarter to request help and check posted tutor schedules. Tutoring is also available at Columbia Tech Center room 336 and online at www.eTutoring.org.

The Writing Center, housed within our Tutoring Centers, is open to the entire campus community to provide free one-on-one tutoring with all types of writing, from course assignments to resumes. Tutors suggest strategies and teach principles to help students evaluate and revise their own writing and become more effective writers. Both appointments and drop-in hours are available.

Veterans Affairs

360-992-2112

The academic programs of study at Clark College are approved by the Washington State's Higher Education Coordinating Board's State Approving Agency (HECB/ SAA) for enrollment of persons eligible to receive educational benefits under Title 38 and Title 10, US Code.

Students can visit the Veterans Affairs Office, located in Gaiser Hall, and receive assistance with admissions and program information, benefit applications and procedures, tutorial assistance, financial aid, and individual counseling.

Special Instructional Programs and Locations

Clark College at Town Plaza

360-992-2741

Town Plaza—5411 E. Mill Plain Blvd.

NOTE: Clark College programs at Town Plaza Center will be moving to the Clark College main campus on January 1, 2013.

Adult Basic Education

360-992-2741

Adult Basic Education (ABE) classes are available for persons sixteen (16) years or older (16- to 18-year-olds must have a high school release). ABE offers classes in reading, writing, and math. There is a quarterly tuition charge. Classes are held on campus and other sites in the community.

Student Learning Center

360-992-2750

The Student Learning Center at TPC (room 107) supports Basic Education and ESL students with a library, computer-based learning, tutoring and mentoring programs and educational workshops. One-on-one and small-group tutoring are available for adults learning English as a second language as well as for native English speakers who want to improve basic reading, writing and math skills. Available only for students with limited English or literacy skills. Hours: 9:00A – 7:00P—MT, 9:00A – 6:00P—WTh, 9:00A – 1:00P—F.

Citizenship

360-992-2741

Citizenship classes explore the basic ideas of American government, politics, and culture. Citizenship classes are offered to adults preparing for the U. S. citizenship exam.

English as a Second Language

360-992-2741

Classes are for non-native speakers who want to communicate more effectively in English. Classes are held at various times during the day and evening. There is a quarterly tuition charge to students. Most classes are held on campus, but some are held at community sites.

GED Preparation

360-992-2741

GED preparation classes help prepare students to take all five (5) GED tests. Classes are available morning, afternoon and evening. (Evening classes are also available at other community sites.) Instruction includes timed practice testing. There is a quarterly tuition charge.

Advising

360-992-2770

College advisors are available at Clark College Town Plaza. Drop in or call for an appointment.

Pathways Center

360-992-2747

The Pathways Center is available to help with career and educational planning, including such steps as information-gathering, decision-making, planning, getting started or taking your next step. Pathway Coaches present information sessions and workshops as well as meet with individuals. Computers are available for educational use to increase basic computer skills, basic academic skills and to gather career and educational information.

Department of Corporate and Continuing Education

360-992-2939

The Department of Corporate and Continuing Education is the region's premier provider of classes, seminars, certificate programs and training opportunities, serving both the business community and the residents of Southwest Washington. The department is dedicated to lifelong learning, personal enrichment and professional development for individuals moving up the corporate ladder or simply interested in acquiring a new skill.

The Department of Corporate and Continuing Education is comprised of the following program areas:

Continuing Education

360-992-2939

Continuing Education courses offer an array of personal enrichment and self-improvement courses designed to enhance your life and offer an opportunity to explore new interests. Taught by talented instructors, our courses make the most of the wide resources offered by Clark College. Continuing Education has something for everyone, with classes that cover such topics as computers, finance, world language and culture, dance, fitness and gardening. Many classes are appropriate for the whole family, and new classes are offered quarterly.

Cooking and Wine School

360-992-2163

The Cooking and Wine School, located at Clark College at Columbia Tech Center, offers fun and educational classes designed for the home cook, with a variety of demonstration and hands-on opportunities. In the well-appointed kitchen classroom, credentialed instructors educate about nutrition and world culture while building students' skills. Classes contain a "green" emphasis to reflect the commitment to environmental sustainability found throughout the LEED-certified building. Additionally, skill-building courses for the burgeoning local wine and hospitality industry are offered. The space is also available for private rentals.

Customized Training

877-473-1600

Customized Training is the college's primary means of providing high-quality, effective learning solutions to both public and private sectors in the business community. By using a large pool of talented Clark College faculty,

adjunct instructors and pre-qualified service providers, the department offers flexible, competitively priced training and consultation services to any type of business, association or institution.

Customized Training staff work one-on-one with clients to identify specific needs and tailor programs accordingly. Most classes take place on-site at the workplace, which increases convenience and cost-effectiveness. If space or equipment is an issue, the department can provide classrooms and training venues to suit the client's particular needs. Customized Training also coordinates industry-wide workshops, seminars, certificate programs and grant-funded training.

Mature Learning

360-992-2213

Mature Learning is an educational and cultural enrichment program for persons fifty-five (55) years of age and older. The program provides an opportunity to learn in a relaxed atmosphere with no tests, grades or homework. A wide variety of courses are offered including fitness, art, writing, computers, sciences, history, creative writing, health, humanities and others. Most classes meet two hours a week, either on the main Clark campus, at Town Plaza or at other locations in the community. Students also travel by coach to Portland/Vancouver opera, theater, symphonies, art galleries, ballet and lectures.

Professional Development

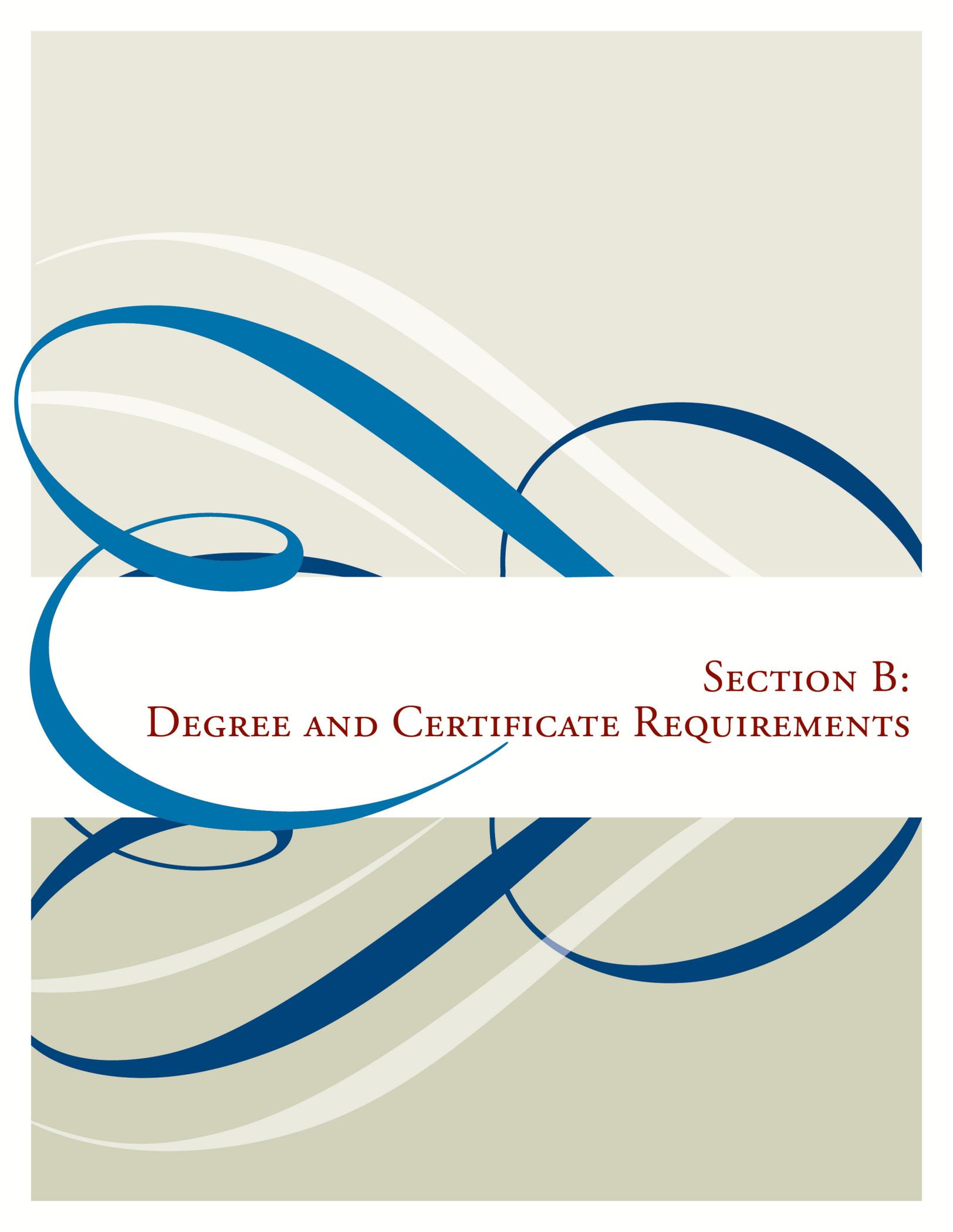
877-473-1600

The department offers business-focused classes, workshops and seminars that are specially designed to help individuals succeed in today's rapidly changing world. A wide range of topics and disciplines are offered, from computers to information technology to customer service and leadership development. These classes are open to everyone and range from efficient one-time learning sessions to seminars and certificate programs. Courses and workshops help businesses and business professionals increase their knowledge, productivity, job satisfaction and career success.

Workforce Education

360-992-2780

Workforce Education provides a variety of training and education services that assist individuals pursuing a career pathway starting from Basic Education through certificate- and degree-completion. Integrated learning for Basic Skills students (IBEST) are available to help students gain basic skills while also learning the specific skills necessary for a professional career. Customized training opportunities sponsored under WorkFirst programming are available for individuals who are currently receiving Temporary Assistance for Needy Families (TANF) from the Washington State Department of Social and Health Services. Career and technical education, as well as customized training, is available in several career-focused areas, and new program options, based on strong employability factors, are introduced each year. Partnerships with the public and private sectors such as the Southwest Washington Workforce Development Council, WorkSource Center-Vancouver, and advisory committees composed of representatives from local businesses, provide updated information that allow the college to offer training that is in demand and has wage and career growth potential. Apprenticeship programs provide tuition waivers for trainees participating in state-approved apprenticeship agreements.



SECTION B:
DEGREE AND CERTIFICATE REQUIREMENTS

SECTION B: Degree & Certificate Requirements

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General Information

Degrees & Certificates

Clark College awards five (5) degrees: the Associate in Arts degree, for completion of a program of study for transfer to a senior institution; the Associate in Science degree, for completion of a program of study in the sciences in preparation for transfer to a senior institution; the Associate in Fine Arts degree, for completion of a program in fine arts in preparation for transfer to a senior institution; the Associate in Applied Science degree for completion of a program of study in an occupational program; and the Associate in Applied Technology degree, for completion of a program of study in an occupational program. Each degree requires a minimum of ninety (90) credits and a minimum Grade Point Average (GPA) of 2.00. Certificates of Proficiency are awarded upon completion of a minimum of forty-five (45) credits of specialized occupational training, including general education requirements and require a minimum GPA of 2.00. Certificates of Achievement are granted upon completion of a program of specialized occupational training of less than forty-five (45) credits and require a minimum GPA of 2.00. Individual departments offer certificates of completion with varying credit requirements.

A student may earn more than one career-technical degree and /or certificate at Clark College, and a student may earn a combination of academic and career-technical degrees and/or certificates. However, a student cannot earn more than one Direct Transfer Agreement degree from Clark College (for instance, a student cannot earn a degree in both the Business Administration – WSUV and an Associate in Arts – Transfer).

Academic Residency Requirements

In an effort to accommodate our mobile student population, Clark College has adopted a residency policy that recognizes the value of coursework completed from other institutions of higher learning.

To obtain a degree or certificate from Clark College, students are required to earn a minimum number of credits in residence at our institution. Clark College does allow students to transfer credits toward meeting degree or certificate program requirements. There is no restriction on the number of transfer credits allowed; however, students must meet the minimum in-residence credit at Clark College for their specific program.

Refer to the following information for specific requirements and restrictions for each type of program:

Associate Degree

Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.

Certificate of Proficiency

Fifteen (15) credits minimum must be completed at Clark College to meet Academic Residency.

Certificate of Achievement

Ten (10) credits minimum must be completed at Clark College to meet Academic Residency.

Catalog Lifespan

Students may complete their degree(s) or certificate(s) under the requirements set forth in any catalog issued during their attendance at Clark College. However, no catalog will be valid for more than seven (7) years. Any student not in attendance at Clark College for two (2) or more calendar years is required to complete the program requirements of the catalog in effect at the time of their re-entry to the college. (WAC 132N-160-080)

Graduation Application Deadlines

Students must submit a graduation application to the Credential Evaluations Department in order to be awarded a degree or certificate upon the fulfillment of the completion requirements. Students are encouraged to submit the graduation application one quarter before they plan to complete all of their requirements. If students do not complete their degree or certificate requirements in the quarter of application, they must reapply.

The priority processing deadline for graduation applications is the tenth (10th) day of the quarter in which the student plans to finish degree or certificate requirements. Graduation applications submitted by the priority deadline will be processed first and assured the awarding of the degree or certificate for the requested quarter.

Graduation applications received after the priority deadline and through the eighth (8th) week of the quarter will be accepted; however, applications received during this non-priority period will be processed after all priority graduation applications have been reviewed and processed. Applications received during this period are not guaranteed to be processed in time to award the degree or certificate in that quarter.

Graduation applications received after the eighth (8th) week of the quarter will not be processed for that quarter and will be moved to the subsequent quarter for review. The awarding of degree or certificate will be posted to the student's transcript in the subsequent quarter.

Late Applications

Students who miss the posted application deadline may submit a Late Application Petition. The petition should be submitted with the Graduation application. The form is available in the Credential Evaluation Office in Gaiser Hall.

Graduation Ceremony

Participation in Commencement Ceremonies

The June commencement is a ceremony for those students who have completed or plan to complete their degree or certificate during fall, winter, spring of the current school year, or the summer quarter immediately following. Participation is not required. Candidates must file their graduation application and cap-and-gown order by the appropriate deadline to be eligible. Ceremony participation does not guarantee degree completion.

Caps & Gowns

Only students who submit a Cap and Gown Order Form and Graduation Application will be allowed to participate in the Commencement ceremony. The Cap and Gown Order Form is available online, in the Bookstore, and on the forms table in Gaiser Hall. The Cap and Gown Order Form deadline for submission is always the last day of winter quarter. There is a fee for caps and gowns; please refer to the order form for current pricing. If you have received honors and would like to order honors regalia, there is an additional fee. Students who have submitted the Cap and Gown Order Form will receive detailed information in May regarding the process for ceremony participation and cap-and-gown disbursement.

Academic Honors

To be eligible for academic honors, students must have a minimum GPA of 3.40. Honors for the Associate in Arts degree and the Associate in Science-Transfer degree are based on the cumulative college-level GPA, while the Associate in Applied Science, Associate of Applied Technology and Certificate of Proficiency are based on the cumulative GPA. Students in the associate degree programs will earn the designation of "with honors" for a GPA of 3.40 to 3.89, and the designation of "with highest honors" for a GPA of 3.90 or higher. Certificates of Proficiency will be granted the designation of "with merit" for a GPA of 3.40 or higher (Certificates of Achievement are not eligible for honors designations). Those students participating in June ceremonies will receive recognition at the celebration based on their appropriate GPA on record at the end of winter quarter. If honor status changes once final grades are processed, adjustments will be made to the student record.

Distribution Coding

The following codes may be included in some course descriptions and indicate the applicability of the course toward the general education requirements of Clark College degrees and certificates.

C	Communication Skills
CP	Computational Skills
GE	General Elective
HA	Humanities Academic (A list)
HB	Humanities Performance (B list)
HE	Health
HR	Human Relations
HPE	Health & Physical Education
NS	Natural Sciences
OC	Oral Communications
PE	Physical Education Activity
Q	Quantitative Skills
SE	Specified Elective
SS	Social Sciences

Transfer Degrees

Associate in Arts (AA)

Associate in Arts – Major Related Program (MRP)

Associate in Fine Arts (AFA)

Associate in Science Transfer – Track 1 (AST 1)

Associate in Science Transfer – Track 2 (AST 2)

Associate in Science Transfer – Major Related Program (MRP)

Associate in Applied Science – Transfer (AAS-T) (*Early Childhood Education only*)

Washington 45 – One Year Transfer Courses

Associate in Arts (AA) Degree Intent

The Associate in Arts (AA) degree is designed for students planning to transfer to a four-year institution to pursue a bachelor's degree program. The degree, in most cases, meets the first two (2) years of general education requirements at the senior institution. There are exceptions; please check with the transfer institution for additional information. Most students transferring with the AA degree will be granted junior standing upon entry to the senior institution.

The standard Associate in Arts degree is also known as a Direct Transfer Agreement (DTA) Associate degree.

AA – DTA Degree Options:

A student may not earn more than one (1) DTA degree at Clark College. Students are advised to carefully examine the differences in the degree requirements where there is more than one choice within a major field and be sure that their transfer intent is in line with the degree chosen. Please note that all AA – MRP listings above are Direct Transfer Agreements (DTA).

AA – DTA

- General Transfer
- Addiction Counselor Education
- Business Administration – Transfer to WSU Vancouver
- Dental Hygiene
- Elementary Education – Transfer to WSU Vancouver
- Nursing – Transfer to WSU Vancouver

AA – MRP

- Biology
- Business Administration
- Elementary Education
- Math Education
- Pre-Nursing

See Section G of catalog for MRP curriculum

General Requirements for All Associate in Arts Degrees

- Complete a minimum of ninety (90) college-level credits.
- Maintain a minimum cumulative college-level GPA of 2.00 or higher.
- Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.
- Submit a graduation application by the appropriate deadline.

General Credit Restrictions

Credit by Department: Ten (10) credits maximum from any single department can be used to fulfill Humanities, Social Sciences and Natural Sciences distribution requirements.

World Language: Five (5) credits maximum in 100-level world language can be used to fulfill Humanities distribution requirements. Additional 100-level foreign language coursework can be used to meet Specified Elective requirements.

Debate Courses: Twelve (12) credits maximum in CMST 171, 172, 173, 271, 272, and 273 can apply toward the degree.

Physical Education Activity: Six (6) credits maximum in PE activity can apply toward the degree. Eligible Health/Physical Education courses (HPE) count as one (1) PE activity credit. PE credits can apply to the degree as follows:

- One (1) credit in PE activity
- Two (2) credits in Specified Electives
- Three (3) credits in General Electives

Non-Traditional Coursework: Fifteen (15) credits maximum in non-traditional coursework can apply toward the degree. This includes AP, IB, CLEP, Cooperative Work Experience, Credit-by-Challenge, Military Experience, Special Projects, and Tech Prep for the AA degree only.

Pass/Fail Grading Option: Thirty (30) credits maximum in courses with Pass/Fail grading option can apply toward the degree, with the exception of the AA Nursing degree which exceeds this limit because of clinical requirements.

General Restrictions

1. A course can apply toward only one (1) distribution requirement (i.e., Communication Skills, Quantitative Skills, Humanities, Social Sciences and Natural Sciences). The exception is for Oral Communications, which is a local degree requirement. When meeting the Oral Communications requirement, the same course can be applied to the degree requirement and to the distribution area.
2. Excess credits earned in distribution areas (i.e., Communication Skills, Quantitative Skills, Humanities, Social Sciences and Natural Sciences) can be used to fulfill the Specified Elective requirement.
3. Credit by Challenge coursework will meet academic residency requirements.

Associate in Arts (AA) – General Transfer

General Education Requirements

Communication Skills [C] – 10 credits minimum

To fulfill the communications requirement for the AA general transfer degree, students must:

1. Take ENGL& 101 or ENGL 135 at five (5) credits;

AND EITHER:

- 2a. Take another five- (5) credit English composition course (ENGL& 102 or 235, or ENGL 109 or 110).

OR

- 2b. Take another three- (3) credit English composition course (ENGL 108, 109 or 110 (taken when three (3) credits) or ENGL 212/BUS 211); AND take a five- (5) credit communication studies course (CMST& 210, 220, or 230).

Quantitative Skills [Q] – 5 credits

Complete a minimum of five (5) credits of coursework 100-level or above with an intermediate algebra prerequisite from the list of courses below:

- BUS 203, 204
- CSE 120, 121, 222, 223, 224
- ENGR 240
- ENVS 135
- MATH 103, 105, 111, 120, 121, 122, 123, 124, 135, 140, 203, 204, 205, 215, 221
- MATH& 107, 148, 151, 152, 153, 254

Health & Physical Education [HE, HPE, PE] – 3 credits

Complete three (3) credits from either option one or option two:

Option One: Complete two (2) credits of Health from the list below AND one (1) credit of any college-level PE activity course:

- HLTH 100, 101, 103, 104, 206, 207, 208, 210, or 278
- PE activity

Option Two: Complete three (3) credits from one (1) of the courses listed below:

- HPE 258 or 266

Oral Communication [OC] – 5 credits

Clark students must complete a course in oral communication effective Fall 2011. Students may apply this course within the Humanities, Social Sciences, or Communication Skills distribution area or count the course as a specified elective. At Clark the options are as follows:

- CMST&210, 220, or 230 (all 5 credits)

Distribution Requirements

Complete a minimum of forty-five (45) credits from the distribution requirements.

Note: Some specific requirements of a program may also meet the General Education requirements.

Humanities [HA, HB] – 15 credits

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than 10 credits from any one subject area. A maximum of five (5) credits of “B” list coursework may be applied. A maximum of five (5) credits of 100-level foreign language can be applied.

Social Sciences [SS] – 15 credits

Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from any one subject area.

Natural Sciences [NS] – 15 credits

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from one subject area. You must include at least one lab science. MATH and CTEC courses do not fulfill this requirement, except MATH 135.

Elective Requirements

Complete a total of twenty-seven (27) credits from courses numbered 100 and above. The two areas of Electives are listed below. No more than 15 credits can be taken from the General Elective area.

Specified Electives [SE] – Courses that apply: [C, Q, HA, HB, SS, NS, SE, HE, HPE, PE, OC] – 12 credits

A maximum of two (2) credits in PE activity can apply toward this area. Courses coded as HPE count as one (1) credit of PE activity.

General Electives [GE] – 15 credits

These courses may be vocational in nature from Career and Technical education courses. The transferability of the Career-Technical courses and any ENL 100-level courses is determined by the receiving baccalaureate institution.

Note: Coursework in ESL or FLPC cannot apply to the AA degree program.

Distribution List for Associate in Arts Degree – General Transfer

Note: Some distribution requirements may be met by major area courses.

Humanities [List A=HA, List B=HB] – 15 credits

Select courses from the list below. Select from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from any one subject area. A maximum of five (5) credits of “B” list coursework may be applied. A maximum of five (5) credits of 100-level foreign language can be applied.

Art (ART)

List A: 118, 131, 151, 172, 220, 221, 222, 223, 225, 226, 250

List B: 103, 104, 105, 110, 115, 116, 117, 137, 138, 140, 141, 142, 145, 146, 168, 169, 170, 173, 174, 175, 177, 178, 179, 180, 181, 189, 190, 191, 203, 204, 206, 207, 208, 257, 258, 259, 260, 261, 262, 270, 271, 273, 274, 278, 290, 295, 296, 297

Biology (BIOL – List A only)

BIOL 180

Communication Studies (CMST/CMST&)

List A: CMST 216, 240; CMST& 102, 210, 220 or 230

List B: CMST 171, 172, 173, 271, 272, 273

Drama (DRMA/DRMA&)

List A: DRMA& 101

List B: DRMA 140, 141, 142, 143, 144, 145, 150, 152, 171, 172, 173, 240, 243, 244, 245, 250, 271, 272, 273

English (ENGL)

List A: ENGL 130, 131, 132, 133, 140, 143, 145, 150, 152, 156, 260, 261, 262, 264, 265, 266, 267, 268, 269, 270, 272

List B: ENGL 121, 122, 123, 125, 126, 275, 276, 290

Humanities (HUM/HUM& – List A only)

HUM& 101; HUM 102, 103, 112, 152, 180, 210

Journalism (JOUR)

List A: JOUR 101

Music (MUSC/MUSC&)

List A: MUSC 100, 116, 117, 118, 125, 127, 135; MUSC& 104, 141, 142, 143, 231, 232, 233

List B: MUSC 101, 103, 106, 110, 115, 137, 138, 139, 146, 150, 151, 152, 153, 154, 155, 170, 171, 172, 173, 174, 175, 176, 177, 178, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 193, 195, 196, 197, 201, 202, 210, 237, 238, 239, 250, 251, 252, 253, 254, 255, 270, 271, 272, 273, 274, 275, 276, 277, 278, 280, 281, 282, 283, 284, 285, 287, 288, 289, 290, 295, 296, 297; MUSC& 121, 122, 123, 221, 222, 223

Philosophy (PHIL/PHIL& – List A only)

PHIL 115, 116, 117, 160, 240, 251, 280, 290; PHIL& 101, 106

Women’s Studies (WS – List A only)

WS 101, 201, 210

World Language (ASL&, CHIN&, FRCH/FRCH&, GERM&, JAPN&, SPAN/SPAN&)

List A: ASL& 121, 122, 123, 221, 222, 223; CHIN& 121; FRCH& 121, 122, 123, 221, 222, 223, 290; GERM 290, GERM& 121, 122, 123, 221, 222, 223; JAPN& 121, 122, 123, 221, 222, 223; SPAN 290, SPAN& 121, 122, 123, 221, 222, 223

List B: FRCH 141, SPAN 141

Social Sciences [SS] – 15 credits

Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from any one subject area.

Anthropology – ANTH& 204, 206, 215

Communication Studies – CMST& 230

Criminal Justice – CJ& 101

Economics – ECON 101, 107, 110, 111, 112, 120; ECON& 201, 202

Environmental Science – ENVS 231

Geography – GEOG 101, 107

History – HIST 231, 251, 252, 253; HIST& 126, 127, 128, 146, 147, 148, 215

Humanities – HUM 210

Political Science – POLS 111, 131, 141, 151, 152, 153, 231, 251, 252, 253; POLS& 203

Psychology – PSYC 203; PSYC& 100, 200,

Sociology – SOC 121, 211, 220 SOC& 101, 201

Women's Studies – WS 101, 201, 210

Natural Sciences [NS] – 15 credits

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from one subject area. You must include at least one lab science. Lab courses are denoted by the letter "L".

1. Agriculture – AG 175L

2. Anthropology – ANTH& 215L

3. Astronomy – ASTR& 101L

4. Biology – BIOL& 100L, 221L, 222L, 223L, 251L, 252L, 253L, 260L,
BIOL 101,139, 140, 141, 142, 143, 145, 146, 150L, 164, 165L, 167, 168L, 180, 208L, 224L,

5. Chemistry – CHEM& 110L, 121L, 131L, 141, 142, 143, 151L, 152L, 153L, 241, 242, 243, 251L,
252L, 253L

6. Environmental Science – ENVS 109L, 135, 210L, 211L, 218L, 221L

7. Geology – GEOL& 101L, 103L, GEOL 102L, 109, 218

8. Humanities – HUM 180

9. Mathematics – MATH 135

10. Meteorology – METR& 101L

11. Nutrition – NUTR 103

12. Physical Science – PHSC 101L, 102L, 104L, 106, 110L

13. Physics – PHYS& 100, 101L, 121L, 122L, 123L, 221L, 222L, 223L

Specified Electives

All courses numbered 100 and above (except 199 and 290) in the departments listed below may be used to meet the Specified Elective portion of the degree (some departments have chosen specifically listed courses only or have excluded specific courses).

Accounting – ACCT& 201, 202, 203 only

Addiction Counseling – ACED 101 only

American Sign Language

Anthropology

Art

Astronomy

Biology

Business – BUS& 101, 201, BUS 203, 204, 211 only

Chemistry

Chinese

Communication Studies – excluding 212, 280

Computer Science & Engineering

Computer Technology – CTEC 100, 120, 121, 123, 124, 125, 224 only

Drama

Early Childhood Education – 121, 137, 138 only

Economics

Education – EDUC& 201 only

Engineering – excluding ENGR& 110 and 130

English

Environmental Science

Forensic Science

French

Geography

Geology

German

Health – excluding HLTH 120 and 121

Health & Physical Education – HPE counts as one (1) credit of physical education

History

Humanities

Japanese

Journalism – JOUR 101 only

Mathematics

Meteorology

Music

Nutrition
Paralegal 212
Philosophy
Physical Education (2 credit maximum in activity courses for specified electives)
Physical Science
Physics
Political Science
Psychology
Sociology
Spanish
Women's Studies

General Electives

These courses may be vocational in nature from Career and Technical education courses. The transferability of the Career-Technical courses and any ENL 100-level courses is determined by the receiving baccalaureate institution. Clark College has a three (3) credit maximum for physical education activity.

Associate in Arts – Major Related Programs (MRP)

To help transfer students better prepare for their junior year, two-year and four-year institutions are working together to create transfer associate degrees outlining the appropriate courses in order for students to be well prepared to enter their chosen major upon transfer. The MRP degrees follow the Direct Transfer Agreement (DTA) format of the Associate in Arts degree.

The DTA/MRP pathway is applicable to students planning to prepare for the following majors at various universities in Washington. Clark College offers the following Associate in Arts – DTA/MRP in:

- Biology
- Business
- Elementary Education
- Math Education
- Pre-Nursing

The MRP degrees listed above have slightly different graduation requirements than other Clark transfer degrees because the curriculum was created via an articulation agreement between Washington two-year and four-year schools. Most notably, AA – MRP degrees do not share Clark's requirement for HPE or Oral Communication (though some of these degrees do require a CMST class). Clark students are encouraged to take HPE or oral communication courses, where appropriate, in case their degree choice changes. General Education requirements and general credit restrictions are identical. Please see Section G: Major Related Programs (MRPs) for curriculum.

Associate in Arts – Option B (AAB)

The Option B degree is designed for students who are certain of the specific four-year program to which they will transfer. Students can design a program to fulfill the senior institution's general admission and program entry requirements. After completion of the program, the student will be awarded an Associate in Arts degree that fulfills the lower-division requirements for the department to which they are applying at the baccalaureate-granting institution. This degree is not a transferrable DTA.

General Education Requirements

- Complete a minimum of ninety (90) college-level credits as authorized for transfer by the four-year institution's representative and/or the student's faculty advisor.
- Maintain a minimum cumulative college-level GPA of 2.00 or higher.
- Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.
- Select courses that meet the senior institution's general distribution requirements plus any special proficiency requirements for entrance. The student should be prepared to provide a copy of the senior institution's current catalog to their Clark College advisor for assistance in program planning.
- Students must be aware that this degree program is NOT a program that adheres to the Direct Transfer Agreement. Students will be required to complete the senior institution's general undergraduate degree requirements.
- Associate in Arts – Option B degree candidates must present to the Credential Evaluations Office, at least two (2) quarters prior to graduation, a copy of their Option B Plan that has been created with their advisor together with any supporting documentation.

AA – Option B Distribution Requirements

Courses should be selected in order to fulfill the senior institution's general education requirements (not Clark's) as defined in the transfer institution's catalog. Students need to meet the following requirements while fulfilling their Associate in Arts – Option B degree:

- Communication Skills: Five (5) credits
- Quantitative Skills: Five (5) credits
- Humanities: Ten (10) credits
- Social Sciences: Ten (10) credits
- Natural Sciences: Ten (10) credits, including one (1) laboratory science
- Foreign Language: Foreign language proficiency is not required for every degree program.*

** Students should consult with their senior institution's representative to confirm requirements. Clark College recommends that those students who did not fulfill foreign language proficiencies in high school take their foreign language while at Clark. Students must complete the 1st, 2nd and 3rd course sequence in a foreign language in order to fulfill foreign language requirements, where applicable. This means up to fifteen (15) credits of foreign language may need to be taken at Clark.*

Articulation Programs

Certain degree programs are offered at Clark College that have been set up in cooperation with four-year institutions. Program tracks that have been approved by Clark's Instructional Planning Team are eligible for Clark's Associate in Arts – Option B degree, even if they do not meet the core requirements. Intensive research, planning, and cooperation on the part of multiple institutions have gone into the development of these programs.

Associate in Fine Arts (AFA)

Degree Intent

This transfer preparation degree is designed for students planning to transfer to a senior institution to pursue a bachelor's degree program (BA or BFA) in fine arts. The degree programs focus on coursework specific to the intended major area of study at the senior institution. While coursework in general education, social sciences, and natural sciences is included, additional coursework in these areas will be required at the senior institution. It is important for students to meet with program-specific advisors to determine an appropriate educational plan. The

AFA is NOT a direct-transfer agreement degree, so students need to be especially aware of requirements of the receiving senior institution.

Currently, Clark College offers two (2) Associate in Fine Arts degrees: one in Graphic Design and one in Studio Art. Please contact either the Art department or Computer Graphics Technology department for advising information.

General Requirements

- Complete a minimum of ninety (90) college-level credits in specified curriculum.
- Maintain a minimum cumulative college-level GPA of 2.00 or higher.
- Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.
- Submit a graduation application by the appropriate deadline.

General Credit Restrictions

Credit by Department: Ten (10) credits maximum from any single department can be used to fulfill the Humanities, Natural Sciences and Social Sciences distribution requirement.

World Language: Five (5) credits maximum in 100-level world language can be used to fulfill the Humanities distribution requirements. Additional 100-level world language coursework can be used to meet other electives or major requirements.

Debate: Twelve (12) credits maximum in CMST 171, 172, 173, 271, 272, and 273 can apply toward the degree.

Physical Education Activity: Six (6) credits maximum in PE activity can apply toward the degree. Eligible Health/Physical Education courses (HPE) count as one (1) PE activity credit.

Non-Traditional Coursework: Fifteen (15) credits maximum in non-traditional coursework. This includes AP, IB, CLEP, Cooperative Work Experience, Credit by Challenge, Military Experience, Special Projects, and Tech Prep.

Pass/Fail Grading Option: Thirty (30) credits maximum in courses with Pass/Fail grading option.

General Restrictions

A course can apply toward only one (1) distribution requirement (i.e., Communication Skills, Quantitative Skills, Humanities, Social Sciences and Natural Sciences). Excess credits earned in distribution areas (i.e., Communication Skills, Quantitative Skills, Humanities, Social Sciences and Natural Sciences) can be used to fulfill the Specified Elective requirement. Credit by Challenge coursework will meet Academic Residency requirements.

General Education Requirements

Communication Skills [C] – 5 credits

- Complete ENGL& 101.

Note: Students who have completed English 101 or its equivalent at less than five (5) credits may complete the communications requirement by completing any of the courses (or their appropriate transfer equivalents) in written or oral communications as defined within the Associate of Arts distribution requirements.

Quantitative Skills [Q] – 5 credits

- Complete a college-level course in quantitative skills, computer science or technology, or symbolic logic as determined by the AFA program department.

Health & Physical Education [HE, HPE, PE] – 3 credits

Complete three (3) credits from either option one or option two:

Option One: Complete two (2) credits of Health from the list below AND one (1) credit of any college-level PE activity course:

- HLTH 100, 101, 103, 104, 206, 207, 208 210, or 278
- PE activity

Option Two: Complete three (3) credits from one (1) of the courses listed below:

- HPE 258 or 266

Humanities [HA] – 5 credits

Select five (5) credits of coursework from the Humanities AA distribution list. Courses must be List A courses. The course completed cannot be part of the AFA major requirements.

Social Sciences [SS] – 5 credits

Select five (5) credits of coursework from the Social Sciences AA distribution list. The course completed cannot be part of the AFA major requirements.

Natural Sciences [NS] – 5 credits

Select five (5) credits of coursework from the Natural Sciences AA distribution list. The course completed must include a lab, which are denoted by the letter “L.” The course completed cannot be part of the AFA major requirements.

The balance of the program shall be defined by the major department and should be a minimum of 90 credits.

Associate in Science – Transfer

Degree Intent

The transfer preparation degrees are designed for students planning to transfer to a senior institution to pursue a bachelor’s degree program in science and/or engineering. The degree programs focus on coursework specific to the intended major area of study at the senior institution. While coursework in general education, humanities, and Social Sciences is included, additional coursework in these areas will be required at the senior institution. It is important for students to meet with program-specific advisors to determine an appropriate educational plan.

General Requirements

- Complete a minimum of ninety (90) college-level credits in specified curriculum.
- Maintain a minimum cumulative college-level GPA of 2.00 or higher.
- Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.

General Credit Restrictions

Credit by Department: Ten (10) credits maximum from any single department can be used to fulfill the Humanities and Social Sciences distribution requirement.

World Language: Five (5) credits maximum in 100-level world language can be used to fulfill the Humanities distribution requirements.

Debate: Twelve (12) credits maximum in CMST 171, 172, 173, 271, 272, and 273 can apply toward the degree.

Physical Education Activity: Six (6) credits maximum in PE activity can apply toward the degree. Eligible Health/Physical Education courses (HPE) count as one (1) PE activity credit.

Non-Traditional Coursework: Fifteen (15) credits maximum in non-traditional coursework. This includes AP, IB, CLEP, Cooperative Work Experience, Credit by Challenge, Military Experience, Special Projects, and Tech Prep.

Pass/Fail Grading Option: Thirty (30) credits maximum in courses with Pass/Fail grading option.

General Restrictions

A course can apply toward only one (1) distribution requirement (i.e., Communication Skills, Quantitative Skills, Humanities, Social Sciences and Natural Sciences). Credit by Challenge coursework will meet Academic Residency requirements.

Associate in Science – Track 1 (AST1)

Associate in Science – Track 1 is for students intending to transfer into programs in:

AST1

Concentration Options:

- Biological Sciences
- Chemistry
- Earth Science
- Environmental/Resources Sciences
- Geology

AST1 – MRP

- Biology Education
- Chemistry Education
- General Science Education

** See Section G of the catalog for MRP curriculum**

General Education Requirements

Communication Skills [C] – 5 credits

- Complete ENGL& 101.

Quantitative Skills – 10 credits

- Complete MATH&151 and 152, or Math courses that have MATH&152 as a prerequisite.

Note: MATH& 151 (Calculus I) requires the successful completion of both MATH 103 (trigonometry) and MATH 111 (college algebra), or recommending score on an approved placement test prior to registration. These prerequisite courses can be used to fulfill elective requirements within the Associate in Science (AS) degree program.

Health & Physical Education [HE, HPE, PE] – 3 credits

Complete three (3) credits from either Option One or Option Two:

Option One: Complete two (2) credits of Health from the list below AND one (1) credit of any college-level PE activity course:

- HLTH 100, 101, 103, 104, 206, 207, 208, 210, or 278
- PE activity

Option Two: Complete three (3) credits from one (1) of the courses listed below:

- HPE 258 or 266

Humanities & Social Sciences [HA,SS] – 15 credits

Select five (5) credits of coursework from Humanities List A, five (5) credits of coursework from Social Sciences, and an additional five (5) credits of coursework from either area for a minimum of fifteen (15) credits. Humanities List A and Social Sciences courses must be selected from the Associate of Arts Distribution List.

Pre-Major Sequence – 45 to 52 credits

All students planning to earn the Associate in Science – Track 1 degree are required to complete the following course sequences. The sequences taken are dependent on the major of the student. **Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with faculty or advising staff to pick the correct sequences.**

1. Chemistry sequence (required of all) 16 credits
 - CHEM&141, 142, 143, 151L, 152L, 153L (16 credits)
2. Additional mathematics courses (required of all—**be sure to consult advisor to identify correct path**)—5 or 6 credits
 - MATH&153 or MATH 203 AND 204
3. One of the following sequence paths depending on the chosen major:
 - A. Biological Science
 - BIOL&221L, 222L, and 223L
 - Students should then consult with the baccalaureate institution to see which of these sequences should be taken: CHEM&241, 242, 243, 251L, 252L, and 253L; OR PHYS&121L, 122L, and 123L.
 - B. Chemistry and Geology Majors
 - PHYS&221L, 222L, and 223L.
 - C. Environmental/Resource Sciences & Earth Science Majors

Complete 15 credits in one of the following three-course sequences (consult the baccalaureate institution for best information):

- BIOL&221L, 222L, and 223L, or
 - PHYS&121L, 122L, and 123L, or
 - PHYS&221L, 222L, and 223L
4. Science Electives (10 to 15 credits)

Complete an additional ten (10) to fifteen (15) credits (preferably in a two- or three-quarter sequence) in courses from the following list:

 - Biology – BIOL 208L, 224L; BIOL& 221L, 222L, 223L, 251L, 252L, 253L, 260L
 - Chemistry – CHEM& 241L, 242L, 243L, 251L, 252L, 253L
 - Computer Science Engineering – CSE 101
 - Engineering – ENGR 101, 102, 103
 - Environmental Science – ENVS 210, 211, 218L, 221
 - Geology – GEOL102L, 218L; GEOL& 101, 103
 - Math – MATH 203, 204, 205, 215, 221; MATH& 153, 254
 - Physics – PHYS& 121L, 122L, 123L, 221L, 222L, 223L

Other Electives – 5 to 12 credits

Sufficient additional college-level credits so that total credits earned is at least 90 quarter credits. These remaining courses may include prerequisites for major courses (e.g., Math 103 and 111), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

Associate in Science – Track 2 (AST2)

Associate in Science – Track 2 is for students intending to transfer into programs in:

AST2

Concentration Options:

- Atmospheric Science
- Computer Science
- Engineering
- Physics

AST2 – MRP

- Bioengineering and Chemical Engineering
- Computer and Electrical Engineering
- Mechanical/Civil/Aeronautical/Industrial/Materials Science Engineering
- Physics Education

See Section G of the catalog for MRP curriculum

General Education Requirements

Communication Skills [C] – 5 credits

- Complete ENGL& 101.

Quantitative Skills [Q] – 10 credits

- Complete MATH& 151 and 152, or Math courses that have MATH&152 as a prerequisite.

Note: MATH& 151 (Calculus I) requires the successful completion of both MATH 103 (trigonometry) and MATH 111 (college algebra), or recommending score on an approved placement test prior to registration. These prerequisite courses can be used to fulfill elective requirements within the Associate in Science (AS) degree program.

Health & Physical Education [HE, HPE, PE] – 3 credits

Complete three (3) credits from either Option One or Option Two:

Option One: Complete two (2) credits of Health from the list below AND one (1) credit of any college-level PE activity course:

- HLTH 100, 101, 103, 104, 206, 207, 208, or 210
- PE activity

Option Two: Complete three (3) credits from one (1) of the courses listed below:

- HPE 258 or 266

Humanities & Social Sciences [HA, SS] – 15 credits

Select five (5) credits of coursework from Humanities List A, five (5) credits of coursework from Social Sciences, and an additional five (5) credits of coursework from either area for a minimum of fifteen (15) credits. Humanities List A and Social Sciences courses must be selected from the Associate of Arts Distribution List.

Pre-Major Sequence – 25 credits

All students planning to earn the Associate in Science – Track 2 degree are required to complete the following course sequences. Please note that there are different sequences for Engineering and Non-engineering majors. The sequences taken are dependent on the major of the student. **Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with faculty or advising staff to pick the correct sequences.**

Engineering Major

1. Calculus-based Physics sequence – 15 credits
 - PHYS& 221, 222, and 223
2. Chemistry with Lab
 - CHEM&141, 151
3. Additional mathematics courses (required of all—**be sure to consult advisor to identify correct path**)—5 or 6 credits
 - MATH&153 or MATH 203 AND 204

Non-engineering Major

1. One of the Physics sequences—Consult with the baccalaureate institution to see which sequence is required—15 credits
 - PHYS& 121, 122, and 123 OR PHYS& 221, 222, and 223
2. Chemistry with Lab
 - CHEM&141, 151
3. Additional mathematics courses (required of all—**be sure to consult advisor to identify correct path**)—5 or 6 credits
 - MATH&153 or MATH 203 AND 204

Elective Requirements – 32 credits

Students are again advised to consult with an advisor to ensure that the courses selected are the best fit for their major and transfer intent. Sequences should be started and finished at the same institution.

Engineering Major

Choose from the courses listed below:

- CHEM& 142, 143, 152, 153, 241, 242, 243, 251, 252, 253
- CSE 101, 120, 121, 222, 223, 224, 290
- CS& 131, 141
- ENGR& 104, 114, 204, 214, 215, 224
- ENGR 101, 102, 103 107, 109 113, 115, 120, 121, 140, 150, 221, 225, 239, 250, 252, 253, 270, 280
- MATH& 254
- MATH 215, 221

Non-engineering Major

The remaining credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend. Students can choose from the following list:

- BIOL& 100, 101, 221, 222, 223, 224, 251, 252, 253, 260
- BIOL 101, 164, 165, 167, 168, 208

- CHEM& 142, 143, 152, 153, 241, 242, 243, 251, 252, 253
- CSE 120, 121, 222, 223, 224, 290
- CS& 131, 141
- ENGR& 104, 114, 204, 214, 215, 224
- ENGR 101, 102, 107, 109 113, 115, 120, 121, 140, 150, 221, 225, 239, 250, 252, 253, 270, 280
- ENVS 210, 218L
- MATH& 153, 254
- MATH 203, 204, 215, 221
- PHYS& 221, 222, and 223
- The pre-calculus courses (MATH 103 and 111) might also be used as electives if these courses had to be taken in preparation for the calculus sequence.

Associate in Science Transfer – MRPs

In addition to the general Associate in Science degree, there are several articulated programs that utilize the Associate in Science Tracks 1 and 2.

Associate of Science – Track 1:

- Biology Education
- Chemistry Education
- General Science Education

Associate of Science – Track 2:

- Bioengineering and Chemical Engineering
- Computer and Electrical Engineering
- Mechanical/Civil/Aeronautical/Industrial/Materials Science Engineering
- Physics Education

These degrees listed above have slightly different graduation requirements than other Clark transfer degrees because the curriculum was created via an articulation agreement between Washington two-year and four-year schools. Most notably, these AS degrees do not share Clark's requirement for HPE. Clark students are encouraged to take HPE, where appropriate, in case their degree choice changes. General Education requirements and general credit restrictions are identical. Please see Section G: Major Related Programs (MRPs) for curriculum.

Associate in Applied Science – Transfer Degree (AAS-T)

The Associate in Applied Science – Transfer degree (AAS-T) is designed to build upon the technical courses required for job preparation but also includes a college-level General-Education component, common in structure for all such degrees. In general, technical degree programs are not designed for transfer to other colleges or universities. However, several four-year colleges and universities have specific bachelor's degree programs that accept AAS-T degrees. Clark College currently has one AAS-T degree in Early Childhood Education (see the Early Childhood Education program description in this catalog for specific program requirements).

Students seeking to transfer into degree programs other than those specifically designed for the AAS-T are urged to consider the DTA or AS-T in preparation for transfer. Majors outside the specifically designed degrees listed above likely will accept very few of the credits in the AAS-T degree (English composition, college-level math, and other general education courses will transfer).

“Washington 45” – List of One Year Transfer Courses

The list of courses in Washington 45 does not replace the Direct Transfer Agreement, Associate of Science Tracks I and II or any Major Related Program agreement, nor will it guarantee admission to a four-year institution.

A student who completes courses selected from within the general education categories listed below at a public community, technical, four-year college or university in Washington State will be able to transfer and apply a maximum of 45 quarter credits toward general education requirement(s) at any other public and most private higher education institutions in the state.¹

For transfer purposes, a student must have a **minimum grade of C or better (2.0 or above) in each course** completed from this list.

Students who transfer Washington 45 courses must still meet a receiving institution’s admission requirements and eventually satisfy all their general education requirements and their degree requirements in major, minor and professional programs.

“First Year Transfer List” of general education courses

- **Communications (5 credits)** – ENGL& 101, ENGL& 102
- **Quantitative and Symbolic Reasoning (5 credits)** – MATH& 107, MATH& 148 or MATH& 151
- **Humanities (10 credits in two different subject areas or disciplines²)** – PHIL& 101, MUSC& 105, DRMA& 101, ENGL& 111, or HUM& 101
For colleges that use History as a Humanities HIST& 116, HIST& 117, HIST& 118, HIST& 146, HIST& 147, HIST& 148)
- **Social Science (10 credits in two different subject areas or disciplines)** – PSYC& 100, SOC& 101, POLS& 101, POLS& 202
For colleges that use History as a Social Science: HIST& 116, HIST& 117, HIST& 118, HIST& 146, HIST& 147, HIST& 148
- **Natural Sciences (10 credits in two different subject areas or disciplines)** – BIOL& 100, BIOL& 160 w/ lab, ASTR& 100, ASTR& 101 with lab, CHEM& 105, CHEM& 110 with lab, CHEM& 121 with lab, CHEM& 161, CHEM& 162, ENVS& 100, ENVS& 101, PHYS& 114, GEOL& 101 with lab.
- **Additional 5 credits** in a different discipline can be taken from any category listed above.

NOTE: *Although these courses are listed under categories, the actual course may satisfy a different general education category at a receiving institution.*

¹*Many private non-profit colleges and universities have distinct general education requirements. Students should check with institution(s) they plan to attend regarding application of transfer credits that will meet general education requirements.*

²*Disciplines are sometimes called “subjects” or “subject matter areas” and designated by a prefix (i.e., PHIL for Philosophy and POLS for Political Science).*

Career and Technical Degrees and Certificates

Associate in Applied Science (AAS)

Associate in Applied Technology (AAT)

Certificate of Proficiency (CP)

Certificate of Achievement (CA)

Certificate of Completion

Degree & Certificate Intent

The career and technical education degrees and certificates are designed for students interested in gaining specific technical career skills. Students focus on completing program specific coursework, balanced by minimal general education courses. Although the Associate in Applied Science and the Associate in Applied Technology degree programs are not designed to guarantee transfer to a senior institution, some institutions may accept technical coursework for students in certain areas of study. Students should contact an advisor and/or the senior institution for additional information.

General Requirements

Complete a minimum number of credits in specified curriculum:

- Associate Degree: Ninety (90) credits minimum
- Certificate of Proficiency: Forty-five (45) credits minimum
- Certificate of Achievement: Forty-four (44) credits maximum
- Maintain a minimum cumulative GPA of 2.00 or higher.

Meet academic residency requirements as follows:

- Associate Degree: Thirty (30) credits minimum must be completed at Clark College.
- Certificate of Proficiency: Fifteen (15) credits minimum must be completed at Clark College.
- Certificate of Achievement: Ten (10) credits minimum must be completed at Clark College.
- Earn a grade of “C” (2.00) or higher in each major area requirement and specifically listed course unless otherwise noted in the department requirements of Section C.

General Credit Restrictions

Physical Education Activity: Six (6) credits maximum in PE activity can apply toward the degree. Eligible HPE courses count as one (1) PE activity credit.

Non-Traditional Coursework: Thirty (30) credits maximum in non-traditional coursework. This includes AP, IB (see further restriction below), CLEP, Cooperative Work Experience, Credit by Challenge, Military Experience, and Special Projects. Because of its dual transcription, Tech Prep coursework in excess of 30 credits is allowed.

Advanced Placement / International Baccalaureate: Fifteen (15) credits combined maximum in Advanced Placement (AP) and International Baccalaureate (IB).

Pass / Fail Grading Option: Thirty (30) credits maximum in courses with Pass / Fail grading option. For AAS degrees in nursing, the thirty-credit maximum is waived due to clinical requirements.

General Information

For Associate in Applied Science degrees, General Education courses are restricted to two (2) distribution areas in the general education area of the degree.

Credit by Challenge coursework will meet academic residency requirements.

Associate in Applied Science (AAS)

The Associate in Applied Science degree is designed for students who wish to complete a program with a specific career and technical education objective. Students are required to complete a minimum of thirty (30) credits at Clark College to meet Academic Residency requirement. Students are required to maintain a cumulative GPA of 2.00 to receive this degree.

General Education Requirements

Note: Some specific requirements of a program may also meet the General Education requirements.

Communication Skills [C] – 6 credits minimum

Select one (1) course from list one and an additional course from either list one or list two, depending on program requirements.

List One	List Two
BTEC 107	CMST& 210
ENGL 098	CMST& 220
ENGL 099	CMST& 230
ENGL& 101 or ENGL 135	CMST 212
ENGL& 102	
ENGL 108	
ENGL 109	
ENGL 110	
ENGL& 235	
ENGL 212 or BUS 211	
MGMT 107	
PTWR 099	

Health & Physical Education [HE, HPE, PE] – 3 credits

Complete three (3) credits from either Option One or Option Two:

Option One: Complete two (2) credits of Health from the list below AND one (1) credit of any college-level PE activity course:

- HLTH 100, 101, 103, 104, 206, 207, 208, 210 or 278
- PE activity

Option Two: Complete three (3) credits from one (1) of the courses listed below:

- HPE 220, 258, or 266

Computational Skills [CP] – 3 credits

Complete three (3) credits from one of the following options:

- Any MATH course numbered 030 or higher, except MATH 096
- Environmental Science – ENVS 135
- Computer Science – CS& 131, 141
- Computer Science & Engineering – CSE 121, 222, 223, 224
- Computer Technology – CTEC 121, 123, 140, 141, 143, 224, 240, 241 281, 282
- A placement test score qualifying the student for entry into MATH 090 will satisfy this requirement for certain designated programs.

Human Relations [HR] – 3 credits

Complete three (3) credits from the list below:

- Communication Studies – CMST 212; CMST& 210,230
- Human Development – HDEV105, 123, or 155
- Any Psychology (PSYC) or Sociology (SOC) course
- Addiction Counselor Education – ACED 201

Humanities [HA, HB] – 3 credits

Complete three (3) credits from the list below:

- Any Art course numbered 100 or above
- Communication Studies – CMST102, 216, 240; CMST& 210, 220, 230
- Any English course in the AA Humanities distribution requirement
- Any World Language (ASL, CHIN, FRCH, GERM, JAPN,SPAN) course
- Any Humanities course
- Music – MUSC 106, 116, 117, 118, 125, 135, 180, 181, 182, 183, 184, 185; MUSC&104, 141, 142, 143
- Any Philosophy course
- Any Drama course
- Women's Studies – WS 101, 201, or 210

Social Sciences [SS] – 3 credits

Complete three (3) credits from any of following departments (note the restriction on ACED and CMST):

Addiction Counseling – ACED 101, 201

Anthropology

Communication Studies – CMST& 230

Environmental Science – ENVS 231

Forensic Science

Geography

History

Political Science

Psychology
Sociology
Women's Studies

Natural Sciences [NS] – 3 credits

Complete three (3) credits from any of following departments (note the restriction on Agriculture, Anthropology, and Humanities):

Agriculture 175	Geology
Anthropology& 215	Humanities 180
Astronomy	Meteorology
Biology	Nutrition
Chemistry (except CHEM 050)	Physical Science
Environmental Science	Physics

Specific Requirements in an Occupational Field

Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit requirement. Most occupational programs require more than fifty-nine (59) credits of specific requirements.

Associate in Applied Technology (AAT)

The Associate in Applied Technology degree is designed for students who wish to complete a program with a specific technical career objective. Students are required to complete a minimum of thirty (30) credits at Clark College to meet Academic Residency requirement. Students are required to maintain a cumulative GPA of 2.00 to receive this degree.

General Education Requirements

Note: Some specific requirements of a program may also meet the General Education requirements. A total of fifteen (15) credits between the three subject areas is required. You may take three (3) to five (5) credits from the courses listed below in each area of Communication Skills, Computational Skills and Human Relation, but the combined total needs to equal fifteen (15) credits.

Communication Skills [C] – 5 credits

Select a minimum of five (5) credits from the list below:

- BTEC 107
- ENGL& 101 or 135
- ENGL 212 or BUS 211
- ENGL& 235

Computational Skills [CP] – 5 credits

Complete five (5) credits from the list below:

- Math – MATH 103, 105, 111, MATH& 107 or any course for which one of these is a prerequisite
- Computer Technology – CTEC 100, 101, 121

Human Relations [HR] – 5 credits

Complete five (5) credits from the list below:

- Communication Studies – CMST 212, 216, CMST&210, 230
- Human Development – HDEV 105, 123, 155, 186, 195, 198, 200
- Management – BUS& 101, MGMT 101, 104, 106, 110, 112, 120, 122, 125, 128, 132
- Psychology – PSYC&100
- Sociology – SOC& 101
- Women's Studies – WS101

Specific Requirements in an Occupational Field

Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit requirement. All Associate in Applied Technology degree programs require at least seventy-five (75) credits minimum of major-related requirements.

Certificate of Proficiency (CP)

The Certificate of Proficiency is designed for students who wish to receive specialized occupational training for a specific career objective. Students must maintain a cumulative GPA of 2.00 and take a minimum of forty-five (45) credits to receive this certificate. Students are required to complete a minimum of fifteen (15) credits at Clark College to meet the Academic Residency requirement.

General Education Requirements

Note: Some specific requirements of a program may also meet the General Education requirements.

Communication Skills [C] – 3 credits

Complete a minimum of three (3) credits from the following course choices:

- BTEC 087 or 107
- BUS 211
- ENGL 097, 098, 099, 103, 135, 212
- ENGL& 101, 102, 235
- Any PTWR course

Note: Pharmacy Technician students may meet the Communication Skills requirement by achieving one of the following:

1. Completion of ENGL 098 and a score of 74 on Reading Skills.
2. COMPASS test score of 78 on Writing skills AND completion of READ 087.
3. COMPASS test score of 78 on Writing skills AND a score of 74 on Reading skills.

Computational Skills [CP] – 3 credits

Complete a minimum of three (3) credits from:

- Any Mathematics (MATH) course, except MATH 096
- Computer Science & Engineering 121, 222, 223, 224, CS& 131, CS& 141
- Any CTEC course except CTEC 102, 103, 104, 105, 115, 180, 181, 200, or 281
- Chemistry 050
- PHAR 110

- HEOC 011 – *Only meets the computational skills requirement for Medical Assistant*
- Business Medical Office 040 – *Only meets the computational skills requirement for Health Information Assistant, Medical Billing/Coding Specialist, and Medical Transcriptionist*
- Environmental Science 135

Human Relations [HR] – 3 credits

Complete a minimum of three (3) credits from:

- Communication Studies – CMST212; CMST& 210, 230
- Any Human Development (HDEV), Psychology (PSYC), or Sociology (SOC) course
- Addiction Counselor Education 201
- Business Technology – BTEC141, 143, 145, 147
- Business Medical Office – BMED 166, 225, 226

Specific Requirements in an Occupational Field

Refer to the prescribed curriculum in the catalog for specific coursework.

Certificate of Achievement (CA)

The Certificate of Achievement is designed for students who wish to receive specialized occupational training for a specialized career objective requiring less than forty-five (45) credits. Students must maintain a cumulative GPA of 2.00 or better. Students are required to complete a minimum of ten (10) credits at Clark College to meet the Academic Residency requirement.

Certificate of Completion

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript. **These certificates are not awarded a standard Clark College diploma.**

Certificates of Completion can be earned through the following departments:

- Business Technology
- Business Technology – Medical Office
- Computer Technology
- Culinary Arts
- Early Childhood Education
- Nursing Assistant Certified
- Professional Baking

Application of Credit

Non-Traditional Credit Policy

360-992-2805

Non-traditional credits include those credits earned through Advanced Placement (AP), International Baccalaureate (IB), College Level Examination Program (CLEP), military experience, cooperative education work experience, Tech Prep/Direct Credit, Special Projects (Independent Study), and Credit by Challenge.

The following restrictions relate to the awarding of credits in non-traditional programs:

1. Credits may be awarded only if the learning experiences fall within the regular curriculum of the college.
2. Academic transcripts will indicate credits that are non-traditional.
3. Credits cannot duplicate credits already awarded.
4. Students should read the degree requirements section of this catalog for information about applying non-traditional credits toward a degree.
5. Students must be currently enrolled at Clark College and have an academic record before credits will be awarded.

Exception to this rule is made for direct transcription of credits through the High School Articulation of approved Tech Prep courses.

The following lists restrictions on the number of credits that can be applied through non-traditional credits in each degree or certificate program at Clark College:

Associate in Arts (AA) Associate in Fine Arts (AFA) and Associate in Science – Transfer (AST) degrees: A maximum of fifteen (15) credits earned through non-traditional means will apply toward the AA or AST programs. Credits earned will apply toward the general elective category only with the exception of approved AP, IB and Credit-by-Challenge tests, which will apply to distribution areas of both degrees.

Associate in Applied Science (AAS), Associate in Applied Technology (AAT), Certificate of Proficiency (CP), and Certificate of Achievement (CA) programs: A maximum of thirty (30) credits earned through non-traditional means will apply toward the AAS, AAT, CP and CA programs. Credits earned will apply toward electives, distribution, or program requirements. Academic Residency requirements must be met as well. For the AAS, AAT and CP, approved AP, IB and Credit-by-Challenge test will apply to general education requirements where applicable. Exception: more than 30 credits of Tech Prep credit may be applied.

Advanced Placement (AP)

Students who complete the Advanced Placement (AP) examination in high school may be eligible for college credit if the appropriate score was earned on The College Board national examination. Students who receive a score of at least 3, but not the specific score listed for each subject, will be granted 5 credits in general electives. Where appropriate, AP credit may apply toward the general education distribution requirements of any program at Clark College. However, students intending to transfer with an Associate in Arts or Associate in Science – Transfer degree should consult with the Admissions Office at the baccalaureate institution of their choice for information on AP credit policies. Not all institutions recognize AP credit posted to the Clark College transcript. A maximum of fifteen (15) credits in AP coursework can apply to the Associate in Arts or the Associate in Science – Transfer programs.

Procedure for Requesting AP Credits

Students should have an official copy of their AP scores sent to Clark College, Attn: Credential Evaluations/GHL 128, 1933 Fort Vancouver Way, Vancouver, WA 98663. Once scores are received and reviewed, a letter will be sent to the student regarding the status of their AP scores. If the scores meet the minimum standards, a petition form will also be sent. Students need to complete the petition form, pay the transcription fee at the Cashier's Office and submit both the petition form and receipt of payment to the Credential Evaluation Office in Gaiser Hall. AP credits are posted to the transcript at the end of the quarter in which the request was submitted as long as the student is enrolled.

Scores

Credit is posted with an “S” grade based on the following recommendations:

Biology

Grade: 4

Action: BIOL& 100 (5 credits)

Chemistry (Chemistry Exam)

Grade: 3 or 4

Action: CHEM& 141, 151 (4), (1) credits

Grade: 5

Action: CHEM& 141, 151 (4), (1) credits and CHEM& 142, 152 (4), (1) credits

Computer Science

See computer science advisor for credit and placement.

English (Language and Composition Exam)

Grade: 3, 4, or 5

Action: ENGL& 101 (5 credits)

English (Composition and Literature Exam)

Grade: 3, 4, or 5

Action: ENGL& 101 (5 credits)

English (Composition and Literature Exam and Language and Composition Exam)

Grade: 3, 4, or 5 on each exam

Action: ENGL& 101 (5 credits) and ENGL& 102 (5 credits)

French

Grade: 3

Action: FRCH& 221 (5 credits)

Grade: 4*

Action: FRCH& 221 (5 credits) and FRCH& 222 (5 credits)

Grade: 5*

Action: FRCH& 221 (5 credits), FRCH& 222 (5 credits), and FRCH& 223 (5 credits)

**May require an additional proficiency interview with the department before credits are granted.*

German

Grade: 3

Action: GERM& 221 (5 credits)

Grade: 4*

Action: GERM& 221 (5 credits) and GERM& 222 (5 credits)

Grade: 5*

Action: GERM& 221 (5 credits), GERM& 222 (5 credits), and GERM& 223 (5 credits)

**May require an additional proficiency interview with the department before credits are granted.*

Geography

Grade: 5

Action: GEOG& 100 (5 credits)

Government and Politics

Grade: 4 or 5

Action: POLS 111 (5 credits)

Japanese

Grade: 3

Action: JAPN& 221 (5 credits)

Grade: 4*

Action: JAPN& 221 (5 credits) and JAPN& 222 (5 credits)

Grade: 5*

Action: JAPN& 221 (5 credits), JAPN& 222 (5 credits), and JAPN& 223 (5 credits)

**May require an additional proficiency interview with the department before credits are granted.*

Mathematics (Calculus AB Exam)

Grade: 3 or 4

Action: MATH& 151 (5 credits)

Grade: 5

Action: MATH& 151 (5 credits) and MATH& 152 (5 credits)

Mathematics (Calculus BC Exam)

Grade: 3 or 4

Action: MATH& 151 (5 credits) and MATH& 152 (5 credits)

Grade: 5

Action: MATH& 151 (5 credits), MATH& 152 (5 credits), and MATH& 153 (5 credits)

Physics (Physics B Exam)

Grade: 3, 4, or 5

Action: PHYS& 121 (5 credits)

Physics (Physics C Mechanics Exam)

Grade: 3 or 4

Action: PHYS& 121 (5 credits)

Grade: 5

Action: PHYS& 221 (5 credits)

Psychology

Grade: 4 or 5

Action: PSYC& 100 (5 credits)

Spanish

Grade: 3

Action: SPAN& 221 (5 credits)

Grade: 4*

Action: SPAN& 221 (5 credits) and SPAN& 222 (5 credits)

Grade: 5*

Action: SPAN& 221 (5 credits), SPAN& 222 (5 credits), and SPAN& 223 (5 credits)

**May require an additional proficiency interview with the department before credits are granted.*

Statistics (Statistics Exam)

Grade: 4 or 5

Action: MATH 203 (3 credits) and MATH 204 (3 credits)

U.S. History

Grade: 3

Action: HIST& 146 (5 credits), HIST& 147 (5 credits), and HIST& 148 (5 credits)

World History

Grade: 3

Action: HIST& 126 (5 credits)

For any AP test that is not listed above, you must receive a score of 3 or better in order to receive 5 credits of General Electives. All non-traditional restrictions still apply.

Where to Get AP Scores

Advanced Placement Program

The College Board

PO Box 6671

Princeton, NJ 08541-6671

Phone: 609-771-7300

TTY: 609-882-4118

www.collegeboard.org

College Level Examination Program (CLEP)

360-992-2805

Clark College awards credit for successful CLEP examinations. A list of subjects and required scores follows. Students pursuing a transfer degree (Associate in Arts, Associate in Science – Transfer, or Associate in Fine Arts) *may only use CLEP credit to fulfill general elective requirements*. Please refer to the Non-Traditional Credits Policy section for details on additional restrictions on CLEP credits.

CLEP General Examinations

Each examination is awarded a maximum of nine (9) quarter hours of credit. The required score for each examination is listed below:

English Composition	50
Humanities	50
College Mathematics	50
Social Sciences/History	50
Natural Sciences	50

Any college coursework completed in the above discipline areas prior to the examination will be subtracted from the nine (9) credits allowed. Refer to the Non-Traditional Credits Policy section for further restrictions on the number of credits applicable toward specific programs.

Example: A student who has completed a five (5) credit biology course at a college or university would be allowed four (4) credits on a successful Natural Science examination.

Credits earned through the general CLEP program will appear on the student transcript under the general heading of the examination completed and will reflect a course number of “298” (i.e. ENGL 298, CLEP Examination). Credit is posted with an “S” grade at the end of the quarter. CLEP credits are not equated to any specific course at Clark College and do not affect a student’s GPA since they do not carry a letter grade. Not all institutions accept CLEP credits. Students intending to transfer to another institution should contact the transfer institution for information on their CLEP policy.

**Clark College does not accept composition modular and college composition modular tests.*

CLEP Subject Examinations

Students who complete CLEP subject examinations may be eligible for credit at Clark College. The decision to grant credit for this type of examination is the responsibility of the department in which the examination was completed. All subject examinations, except foreign language, require department evaluation. *Again, those students pursuing a transfer degree (AA, AFA or AS) may only use these exams in the general elective area of their degree.* The required score for each foreign language is as follows:

French, Level 1: 50 or French, Level 2: 62

10 credits granted for FRCH& 121 and 122

German, Level 1: 50 or German, Level 2: 63

10 credits granted for GERM& 121 and 122

Spanish, Level 1: 50 or Spanish, Level 2: 66

10 credits granted for SPAN& 121 and 122

To be considered for credit, a student must pass the examination with the equivalent of a “C” or better grade. Credit will be awarded for the equivalent course(s) at Clark College for vocational/technical programs, as determined by the appropriate department. Students who have already earned credit in a course of a higher academic level than the examination covered will not receive credit for the CLEP examination. The transcript will reflect the credit granted by listing the equivalent course number, title, and credits, with a notation stating “CLEP Examination” for the Applied Science and Technical Degrees only. Refer to the Non-Traditional Credits Policy section for further restrictions on the number of credits applicable toward specific programs.

Procedure for Requesting CLEP Credits

Students should have an official copy of their CLEP scores sent to Clark College, Attn: Credential Evaluations. Once scores are received and reviewed, a letter will be sent to the student regarding the status of their CLEP scores. If the scores meet the minimum standards, a petition form will also be sent. Students need to complete the petition form, pay the transcription fee at the Cashier’s Office, and submit both the petition form and receipt of payment to the Credential Evaluations Office in Gaiser Hall. CLEP credits are posted to the transcript at the end of the quarter.

Testing Facilities

Although Clark College accepts CLEP, the college is not a testing site. The nearest CLEP testing facility is Mt. Hood Community College in Oregon. Please contact MHCC at 503-491-7591 for information on testing availability and cost.

Where to Get CLEP Scores

CLEP Transcript Service
PO Box 6600
Princeton, NJ 08541-6600
Phone: 1-800-257-9558
www.collegeboard.org

Cooperative Education Work Experience

360-992-2239 or 360-992-2964

Clark College recognizes the value to students of actual experience in a work environment. Credits earned through this program may meet general elective requirements and/or core program requirements.

Cooperative Education Work Experience is a non-traditional credit program and is subject to the restrictions listed under the Non-Traditional Credit Policy section in this catalog.

Credit by Challenge

Students who have previously taken courses, established a transcript record at Clark, and believe that previous experience has provided them with the competencies essential for passing a course may request to challenge that course. Students wishing to challenge a course may not be currently enrolled in the course they wish to challenge, nor may students challenge courses if they have not completed a course with a higher degree of difficulty. Some courses may not be challenged. Courses and grades resulting from the challenge process will be posted to the student's transcript record at the end of the quarter in which the exam was proctored. Please contact the appropriate instructional department for more information.

Credit by Challenge is a non-traditional credit program and is subject to the restrictions listed under the Non-Traditional Credit Policy section in this catalog.

International Baccalaureate (IB)

360-992-2805

Clark College recognizes the International Baccalaureate (IB) program as a coherent, challenging course of study and responds individually to each participant's petition for granting of college credit. Students may be awarded credit for completing individual areas of study within the program. A minimum score of five (5) on the higher-level examination is required for consideration of credit. Standard-level examinations are not granted credit. A maximum of fifteen (15) credits in IB coursework can apply to the Associate in Arts or Associate in Science – Transfer programs.

Students should submit official IB transcripts to Credential Evaluations in Gaiser Hall for review. Once scores are received and reviewed, the student will receive a letter from the Credential Evaluations office. If the scores meet the minimum standards, a petition form will also be sent. Students need to complete the petition form, pay the transcription fee at the Cashier's Office, and submit both the petition form and receipt of payment to the Credential Evaluations Office in Gaiser Hall. Specific department policies are listed below. Examinations completed in areas not listed below require appropriate department chair approval before credit will be granted.

The International Baccalaureate program is a non-traditional credit program and is subject to the restrictions listed under the Non-Traditional Credit Policy section in this catalog.

Mathematics

Students successfully completing the Higher Level Mathematics Exam with a minimum score of five (5) will be granted credit for MATH& 151 (5 credits) and may register for MATH& 152 (5 credits).

Chemistry

Students successfully completing the Higher Level Chemistry Exam with a minimum score of five (5) will be granted college credit for CHEM& 141, 151, 142, 152, 143, and 153 (16 credits).

Physics

Students successfully completing the Higher Level Physics Exam with a minimum score of five (5) will be granted college credit for PHYS& 121, 122, and 122 (15 credits).

Military Experience

360-992-2711

Students may be granted general elective credit for experience gained from military training. Credit recommendations are based on the American Council on Education (ACE) guidelines. Clark College does not post military experience credit as a specific course. The transcript will reflect the credits under the heading of “Military Experience” with the total number of credits granted.

Military experience is a non-traditional credit program and is subject to the restrictions listed under the Non-Traditional Credit Policy section in this catalog. Contact the Veterans Affairs Office at Clark College for further information.

Special Projects (Independent Study)

To provide for challenging learning experiences beyond regular coursework, more-advanced students may arrange to undertake Special Projects. With the approval of the division chair and under instructor supervision, students are given the opportunity to plan, organize, and complete independent study projects.

Special Projects are listed in the department course description section of the catalog as course number 290. No more than fifteen (15) credits in Special Projects will be allowed toward the Associate in Arts degree. Students are responsible for ensuring that the credits earned do not exceed this limit and that credits earned will be accepted for transfer. Students should contact the instructor to register for a Special Projects course.

Special Projects coursework is a non-traditional credit program and is subject to the restrictions listed under the Non-Traditional Credit Policy section in this catalog.

Tech Prep/Direct Credit

Tech Prep/Direct Credit is a dual-credit program that allows high school students to earn college and high school credits simultaneously in selected high school career and technical education courses. These courses have been identified and approved through formal articulation agreements created between Clark College and local high schools.

Students must earn a grade of “B” or better to qualify. Students interested in the Tech Prep/Direct Credit program should contact their high school career counselor to learn more about the program and which classes qualify.

High School Articulation/Tech Prep is a non-traditional credit program and is subject to the restrictions listed under Non-Traditional Credit Policy section in this catalog.

Transfer AA Honors Program

The Transfer AA Honors Program is designed to promote excellence in learning and to celebrate exceptional student achievement. Students admitted to the Honors Program have the opportunity to take intellectually enriching Honors courses with other outstanding students, work closely with a faculty mentor, and complete an independent capstone project relevant to their area of interest.

Program admission requirements

Students must meet the following requirements for admission to the program:

- At least 12 college-level credits with a cumulative GPA of 3.50 or higher
- Completion of ENGL& 101 with a grade of B+ or higher
- Eligibility for enrollment in MATH 093 or higher

One or more of the admission requirements above may be waived if a Clark faculty member submits a formal recommendation of admission on behalf of the student. An online application form is available at www.clark.edu/honors.

Transfer AA Honors Certificate

To earn the Honors Certificate, students must satisfy the following requirements:

- Completion of 20 credits of Honors-designated courses
- Completion of 3-credit Honors capstone course
- 3.50 cumulative GPA
- Concurrent completion of Transfer AA degree requirements

Transfer Institution Accreditation Requirements

Clark College accepts credits from regionally accredited institutions of higher education. Recognized accrediting bodies are as follows:

- Middle States Association of Colleges and Schools (MSA)
- New England Association of Schools and Colleges, Inc./Commission on Institutions of Higher Education (NEASC-CIHE)
- North Central Association of Colleges and Schools (NCA)
- Northwest Commission on Colleges and Universities (NWCCU) (formerly known as Northwest Association of Schools and Colleges [NASC])
- Southern Association of Colleges and Schools/Commission on Colleges (SACS-CC)
- Western Association of Schools and Colleges/Accrediting Commission for Community and Junior Colleges (WASC-Jr.)
- Western Association of Schools and Colleges/Accrediting Commission for Senior Colleges and Universities (WASC-Sr.)

Domestic Institution Transfer Policy

Students who have attended other institutions of higher education may choose to transfer credit to Clark College to meet degree requirements. Any Health Occupation, competitive-entry program student **MUST** provide all transfer institution transcripts. Although there is no limit on the number of credits that can transfer into the college, students must meet the Academic Residency requirements for their program. The Credential Evaluations Office will review the content of each course transferred and determine the appropriate course equivalency.

International Institution Transfer Policy

Students with credits from international institutions of education may submit their academic records for credit consideration. The amount of credit awarded will vary, based on the individual record of the student. Clark College does not recognize English coursework completed in countries outside of the United States, with the exception of Australia, Canada (except Quebec province), Ireland, New Zealand, and the United Kingdom.

Clark College requires translation and evaluation of the student's academic record from an agency that is a member of the National Association of Credential Evaluation Services. A current list of members is available online at www.naces.org. The costs of agency services are the responsibility of the student.

2012–2013 Associate in Arts Degree – General Transfer Worksheet— Unofficial Evaluation

This is an unofficial evaluation for advising purposes only. Refer to degree requirements in this section for general information and academic residency requirements.

The Associate in Arts (AA) degree is for students intending to transfer to a four-year institution. Also known as a Direct Transfer Agreement (DTA) Associate degree, the AA meets all or most general education requirements at most universities in Washington and several in Oregon. Students are required to maintain a college level grade point average of 2.00 to receive this degree. Refer to degree requirements for eligible courses and certain restrictions.

General Education Requirements

For the following requirements refer to the lists of applicable courses under the General Education Requirements for the Associate in Arts.

Communication Skills [C] – 10 credits min.

Must Include ENGL&101 or ENGL135

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Credits Needed Total

Quantitative Skills [Q] – 5 credits

Complete a minimum of five (5) credits of coursework 100-level or above with an intermediate algebra prerequisite.

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Credits Needed Total

Health and Physical Education [HE, PE, HP] – 3 credits

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Credits Needed Total

Oral Communication [OC] – 5 credits

Complete CMST& 210, 220 or 230.

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Credits Needed Total

Distribution Requirements

Humanities [HA, HB] – 15 credits

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from any one subject area. A maximum of five (5) credits of "B" list coursework may be applied. A maximum of five (5) credits of 100-level foreign language can be applied.

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Credits Needed Total

Social Science [SS] – 15 credits

Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from any one subject area.

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Credits Needed Total

Natural Sciences [NS] – 15 credits

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from one subject area. You must include at least one lab science. MATH and CTEC courses do not fulfill this requirement, except MATH 135.

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Credits Needed Total

Elective Requirements

Specified Electives [SE] – 12 credits

Courses that apply: [C, Q, HA, HB, HE, HPE, SS, NS, OC, PE, SE] – 12 credits.

A maximum of two (2) credits in PE activity can apply towards this area. Courses coded as HPE count as one (1) credit of PE activity.

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Credits Needed Total

General Electives [GE] – 15 credits

These courses may be vocational in nature from Career and Technical education courses. The transferability of the Career-Technical courses in any ENL 100-level courses is determined by the receiving baccalaureate institution. **Note:** Coursework in ESL or FLPC cannot apply to the AA degree program.

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Credits Needed Total

Notes:

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University:

Major:

Advisor:

Date:

2012–2013 Associate in Science Transfer Degree – Track 1 Worksheet— Unofficial Evaluation

This is an unofficial evaluation for advising purposes only. Refer to degree requirements in this section for general information and academic residency requirements. The Associate in Science degree–Track 1 is intended for students planning to transfer to a four-year institution to further their study of Biological Sciences, Environmental/Resource Sciences, Chemistry, Geology, or Earth Sciences. Students are required to maintain a cumulative grade point average of 2.00 to receive this degree.

General Education Requirements

For the following requirements refer to the lists of applicable courses under the General Education Requirements for the Associate in Science – Track 1.

Communication Skills [C] – 5 credits

ENGL& 101

Credits Needed Total

Quantitative Skills [Q] – 10 credits

MATH &151

MATH &152

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Credits Needed Total

Health and Physical Education [HE, PE, HP] – 3 credits

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Credits Needed Total

Humanities and Social Science [HA, SS] – 15 credits

Select five (5) credits of coursework from Humanities List A, five (5) credits of coursework from Social Sciences, and an additional five (5) credits of coursework from either area for a minimum of fifteen (15) credits. Humanities List A and Social Science courses must be selected from the Associate of Arts Distribution List.

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Credits Needed Total

Pre-Major Sequence – 45 to 52 credits

Chemistry sequence (required of all) 16 credits:

- CHEM&141, 142, 143, 151L, 152L, 153L

Additional mathematics courses 5 or 6 credits:
(be sure to consult advisor to identify correct path)

- MATH&153 or MATH 203 AND 204

Additional Science Sequence Requirements 15-30 credits: One of the following sequence paths depending on the chosen major

A. Biological Science

- BIOL&221L, 222L, and 223L

• Students should then consult with the baccalaureate institution to see which of these sequences should be taken: CHEM&241, 242, 243, 251L, 252L, and 253L; OR PHYS&121L, 122L, and 123L.

B. Chemistry and Geology Majors

- PHYS&221L, 222L, and 223L.

C. Environmental/Resource Sciences & Earth Science Majors

Complete 15 credits in one of the following three-course sequences (consult the baccalaureate institution for best information):

- BIOL&221L, 222L, and 223L, or
- PHYS&121L, 122L, and 123L, or
- PHYS&221L, 222L, and 223L

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Credits Needed Total

Notes:

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Advisor:

Date:

Required Electives

Science Electives – 10 to 15 credits

Complete an additional ten (10) to fifteen (15) credits (preferably in a two or three quarter sequence) in courses from the following list:

- Biology 208, 221, 222, 223, 224, 251, 252, 253, 260
- Chemistry 241, 242, 243, 251, 252, 253
- Environmental Science 210
- Geology 101, 102, 103, 218
- Math 153, 203, 204, 205, 215, 221, 254
- Physics 121, 122, 123, 221, 222, 223

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Credits Needed Total

Other Electives [GE] – 5 to 12 credits

Sufficient additional college-level credits so that total credits earned is at least 90 quarter credits. These remaining courses may include prerequisites for major courses (e.g., Math 103 and 111), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

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Credits Needed Total

2012–2013 Associate in Science Transfer Degree – Track 2 Worksheet— Unofficial Evaluation

This is an unofficial evaluation for advising purposes only. Refer to degree requirements in this section for general information and academic residency requirements.

The Associate in Science degree–Track 2 is intended for students planning to transfer to a four-year institution to further their study of Engineering, Computer Science, Physics, and Atmospheric Science. Students are required to maintain a cumulative grade point average of 2.00 to receive this degree.

General Education Requirements

For the following requirements refer to the lists of applicable courses under the General Education Requirements for the Associate in Science – Track 2.

Communication Skills [C] – 5 credits

ENGL& 101

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Credits Needed Total

Quantitative Skills [Q] – 10 credits

Refer to reverse for a list of eligible courses.

MATH& 151

MATH& 152

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Credits Needed Total

Humanities and Social Science [HA, SS] – 15 credits

Select five (5) credits of coursework from Humanities List A, five (5) credits of coursework from Social Sciences, and an additional five (5) credits of coursework from either area for a minimum of fifteen (15) credits. Humanities List A and Social Science courses must be selected from the Associate of Arts Distribution List.

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Credits Needed Total

Health and Physical Education [HE, PE, HP] – 3 credits

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Credits Needed Total

Pre-Major Program Requirements – 25 credits

All students planning to earn the Associate in Science – Track 2 degree are required to complete the following course sequences. Please note that there are different sequences for Engineering and Non-engineering majors. The sequences taken are dependent on the major of the student. **Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with faculty or advising staff to pick the correct sequences.**

Engineering Major

1. Calculus-based Physics sequence –15 credits
 - PHYS& 221, 222, and 223
2. Chemistry with Lab
 - CHEM&141, 151
3. Additional mathematics courses (required of all—**be sure to consult advisor to identify correct path**) – 5 or 6 credits
 - MATH&153 or MATH 203 AND 204

Non-Engineering Major

1. One of the Physics sequences—Consult with the baccalaureate institution to see which sequence is required –15 credits
 - PHYS& 121, 122, and 123 OR PHYS& 221, 222, and 223
2. Chemistry with Lab
 - CHEM&141, 151
 - OR any 5-credit Biology class with a lab.
3. Additional mathematics courses (required of all—**be sure to consult advisor to identify correct path**) – 5 or 6 credits
 - MATH&153 or MATH 203 AND 204

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Credits Needed Total

Elective Requirements – 32 credits

The remaining credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

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Credits Needed Total

Notes:

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Advisor:

Date:

2012–2013 Certificate of Proficiency Worksheet —Unofficial Evaluation

This is an unofficial evaluation for advising purposes only. Refer to degree requirements in this section for general information and academic residency requirements.

The Certificate of Proficiency is designed for students who wish to receive specialized occupational training for a specific career objective. Students must maintain a cumulative grade point average of 2.00 to receive this certificate.

General Education Requirements

For the following requirements refer to the lists of applicable courses under the General Education Requirements for the Certificate of Proficiency.

Communication Skills – 3 credits

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Credits Needed Total

Computational Skills – 3 credits

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Credits Needed Total

Human Relations – 3 credits

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Credits Needed Total

Specific Requirements in an Occupational Field

Refer to the prescribed curriculum in the catalog for specific coursework.

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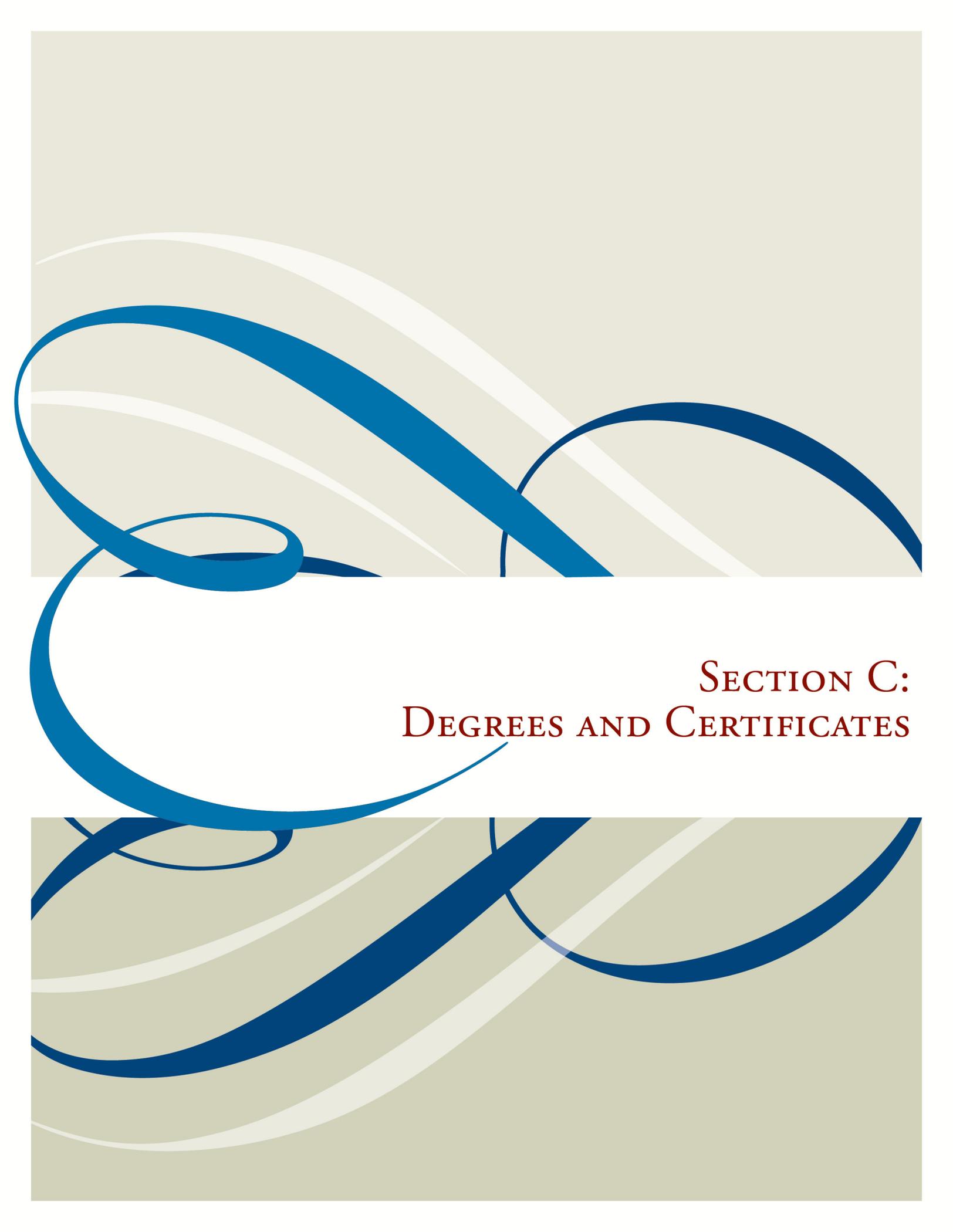
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Advisor:

Date:



SECTION C:
DEGREES AND CERTIFICATES

SECTION C: Degrees and Certificates

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Addiction Counselor Education

Addiction counselors work with families and individuals of all ages who are experiencing problems with addictive behaviors. Counselors may work as members of treatment teams in inpatient or outpatient settings, with schools, or in businesses. They provide group, individual, and couples therapy as well as assessments and interventions. Addiction counselors also work as liaisons for their clients to judicial systems, schools, state services, and communities. Counselors may serve as educators in their communities, acquainting community members with treatment options and prevention strategies for the community. Please contact the Addiction Counselor Education Department (ACED) program advisor for current Washington state certification requirements.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and be awarded the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Addiction Counselor Education (CP)

The Certificate of Proficiency in Addiction Counselor Education equips members of the helping professions as well as other professions with knowledge of the addiction disorders and behaviors in order to assist them in the delivery of services to their clients and patients. Knowledge of addictive processes can greatly assist members of law enforcement, teachers, health care workers, corrections and social services workers, among others, in performing their jobs in a more comprehensive manner. This certificate is intended only for those students already holding an associate degree or above.

General Education Requirements

Communication Skills (3 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Computational Skills (3 credits required)

Human Relations (3 credits required)

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
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Major Area Requirements

ACED 101	SURVEY OF ADDICTIONOLOGY *	3 cr.
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ACED 122	INTRODUCTION TO ADDICTIONS COUNSELING SKILLS	3 cr.
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ACED 125	GROUP COUNSELING IN ADDICTIONS	3 cr.
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ACED 132	INTRODUCTION TO COUNSELING FAMILY MEMBERS	3 cr.
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ACED 136	LAW AND ETHICS IN ADDICTIONS COUNSELING	3 cr.
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ACED 137	ADDICTIONS AND MENTAL ILLNESS	3 cr.
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ACED 138	PREVENTION AND EDUCATION IN THE COMMUNITY	3 cr.
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ACED 160	PHARMACOLOGY OF DRUGS OF ABUSE	3 cr.
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ACED 164	ADOLESCENT ADDICTION ASSESSMENT & TREATMENT	3 cr.
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ACED 170	AIR- AND BLOOD-BORNE PATHOGENS	2 cr.
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ACED 201	THEORIES OF COUNSELING	3 cr.
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ACED 202	MULTI-CULTURAL ADDICTIONS COUNSELING	3 cr.
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ACED 203	CASE MANAGEMENT IN ADDICTION MEDICINE	3 cr.
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ACED 205	ADVANCED TECHNIQUES FOR ADDICTION COUNSEL	3 cr.
PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.
		Total Required Credits: 57

**For non-majors also.*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Treat substance abuse clients in multiple settings including individual and group counseling situations.
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete the Washington State Chemical Dependency Professional exam.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Addiction Counselor Education (AAS)

Summer Quarter (Optional)

ACED 132	INTRODUCTION TO COUNSELING FAMILY MEMBERS	3 cr.
ACED 136	LAW AND ETHICS IN ADDICTIONS COUNSELING	3 cr.
ACED 170	AIR- AND BLOOD-BORNE PATHOGENS	2 cr.

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

PSYC& 100	GENERAL PSYCHOLOGY **	5 cr.
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Humanities (3 credits required)

Social Sciences (3 credits required)

PSYC& 200	LIFESPAN PSYCHOLOGY **	5 cr.
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Natural Sciences (3 credits required)

Major Area Requirements

ACED 101	SURVEY OF ADDICTIONOLOGY *	3 cr.
ACED 122	INTRODUCTION TO ADDICTIONS COUNSELING SKILLS	3 cr.

ACED 125	GROUP COUNSELING IN ADDICTIONS	3 cr.
ACED 132	INTRODUCTION TO COUNSELING FAMILY MEMBERS	3 cr.
ACED 136	LAW AND ETHICS IN ADDICTIONS COUNSELING	3 cr.
ACED 137	ADDICTIONS AND MENTAL ILLNESS	3 cr.
ACED 138	PREVENTION AND EDUCATION IN THE COMMUNITY	3 cr.
ACED 160	PHARMACOLOGY OF DRUGS OF ABUSE	3 cr.
ACED 164	ADOLESCENT ADDICTION ASSESSMENT & TREATMENT	3 cr.
ACED 170	AIR- AND BLOOD-BORNE PATHOGENS	2 cr.
ACED 201	THEORIES OF COUNSELING *	3 cr.
ACED 202	MULTI-CULTURAL ADDICTIONS COUNSELING	3 cr.
ACED 203	CASE MANAGEMENT IN ADDICTION MEDICINE	3 cr.
ACED 205	ADVANCED TECHNIQUES FOR ADDICTION COUNSEL	3 cr.
ACED 210	FIELD PLACEMENT I	6 cr.
and ACED 211	FIELD PLACEMENT II	6 cr.

Additional Major Area Electives

ENGL& 102	ENGLISH COMPOSITION II	5 cr.
or ENGL& 235	TECHNICAL WRITING	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
HDEV coursework		4 cr.

Total Required Credits: 90

**For non-majors also.*

***May count for both Human Relations and Social Science distribution.*

Program Outcomes

- Treat substance abuse clients in multiple settings including individual and group counseling situations.
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete the Washington State Chemical Dependency Professional exam.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.

- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Addiction Counselor Education (AA)

Students who earn Clark College's Associate in Arts degree qualify to transfer to most Washington colleges and universities with junior standing. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as soon as possible.

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (5 credits required)

Health & Physical Education (3 credits required)

Oral Communication (5 credits required)

Humanities (15 credits required)

Social Sciences (15 credits required)

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
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Natural Sciences (15 credits required)

Must include a lab science

Specified Electives

ACED 101	SURVEY OF ADDICTIONOLOGY *	3 cr.
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PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.
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Additional Specified Electives		4 cr.
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Major Area Requirements

ACED 122	INTRODUCTION TO ADDICTIONS COUNSELING SKILLS	3 cr.
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ACED 125	GROUP COUNSELING IN ADDICTIONS	3 cr.
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ACED 136	LAW AND ETHICS IN ADDICTIONS COUNSELING	3 cr.
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ACED 160	PHARMACOLOGY OF DRUGS OF ABUSE	3 cr.
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ACED 201	THEORIES OF COUNSELING	3 cr.
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Total Required Credits: 90

** For non-majors also.*

Refer to the Degree and Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the general education requirements.

Program Outcomes

- Treat substance abuse clients in multiple settings, including individual and group counseling situations.
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.

- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete the Washington State Chemical Dependency Professional exam.

Art

The Clark College Art Department offers many classes to help students prepare for advanced studies at a four-year institution, enter an art profession directly, or simply enrich their spirit. Clark's Art faculty is composed of a complementary blend of highly qualified instructors possessing advanced degrees, as well as recognized working professionals who bring with them a practical knowledge of the art marketplace.

It is imperative that students planning to transfer to a college, university or art school and seek a B.A. or B.F.A. in a design-related field see an Art Department faculty member as early as possible to plan an individualized program. Call 360-992-2370 or 360-992-2639 for an appointment.

General - Art (suggested) (AA)

This is a suggested program for the first two years of major study for a general Art degree. Lower-division course requirements will vary depending on the transfer institution. Contact the transfer institution to determine required coursework as early as possible. Many transfer institutions require foreign language.

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

Quantitative Skills (5 credits required)

MATH& 107	MATH IN SOCIETY *	5 cr.
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Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS	3 cr.
or HPE 266	MIND BODY HEALTH	3 cr.

Oral Communication (5 credits required)

CMST& 230	SMALL GROUP COMMUNICATION **	5 cr.
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Humanities (15 credits required) ***, ****

ART 221	ART HISTORY: MEDIEVAL-RENAISSANCE	5 cr.
or ART 222	ART HISTORY: BAROQUE-MODERN	5 cr.
or ART 223	ART IN THE TWENTIETH CENTURY	5 cr.

Social Sciences (15 credits required)

From at least three different departments.

Natural Sciences (15 credits required)

From at least two different departments and must include a lab science.

Pre-Major Program Requirements

ART 103	DRAWING I	3 cr.
ART 110	CREATIVITY AND CONCEPT	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 116	COLOR THEORY AND DESIGN	4 cr.

ART 117	THREE-DIMENSIONAL DESIGN	4 cr.
or ART 118	TIME-BASED ART AND DESIGN	3 cr.
ART 203	THE HUMAN FIGURE I	4 cr.
ART Elective		5-7 cr.
Total Required Credits: 90		

**Recommended*

***CMST& 230 is recommended and can be used for a Social Science elective.*

****Complete a five credit A-list course from a department other than Art.*

*****Five credits of Studio Art from pre-major requirements can be applied.*

General - Art, Photography Concentration (suggested) (AA)

This is a suggested program for the first two years of major study in Art with a concentration in Photography. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

Quantitative Skills (5 credits required)

MATH& 107	MATH IN SOCIETY	5 cr.
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Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS	3 cr.
or HPE 266	MIND BODY HEALTH	3 cr.

Oral Communication (5 credits required)

CMST& 230	SMALL GROUP COMMUNICATION *	5 cr.
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Humanities (15 credits required) **

ART 140	PHOTOGRAPHY I	4 cr.
ART 223	ART IN THE TWENTIETH CENTURY	5 cr.

Social Sciences (15 credits required)

From at least three different departments.

Natural Sciences (15 credits required)

From at least two different departments and must include a lab science.

Pre-Major Requirement

ART 103	DRAWING I	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 116	COLOR THEORY AND DESIGN	4 cr.
ART 141	PHOTOGRAPHY II	4 cr.
ART 146	DIGITAL PHOTOGRAPHY II	4 cr.
CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.

Recommended Electives

ART 104	DRAWING II	3 cr.
ART 118	TIME-BASED ART AND DESIGN	3 cr.
ART 142	PHOTOGRAPHY III	4 cr.
ART 145	DIGITAL PHOTOGRAPHY I	3 cr.
ART 208	DIGITAL ILLUSTRATION	4 cr.
ART 290	SPECIAL PROJECTS	1-6 cr.
CGT 100	GRAPHIC DESIGN TECHNOLOGY I	4 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.
JOUR 121	COLLEGE NEWSPAPER	1-3 cr.

Total Required Credits: 90 Minimum

*CMST& 230 is recommended and can be used for a Social Science elective.

**Complete a five credit A-list course from a department other than Art.

Associate in Fine Arts, Graphic Design Concentration (AFA)

The Art Department is offering this specialized, two-year degree intended to prepare students wishing to transfer into competitive-entry design programs at baccalaureate institutions. The degree may also well serve those looking to acquire a solid foundation in graphic design with the goal of seeking employment opportunities with just the associate degree, including those already holding a degree in another field who are looking to change careers.

Completion of the following recommended courses does not guarantee admission as an art major with junior standing at the transfer institution. A competitive GPA and a quality portfolio are also essential. Due to the AFA degree's heavy emphasis on art and graphic design foundation courses, upon acceptance, the AFA student should expect to complete further general education courses at the baccalaureate institution in addition to the major area coursework. Students are strongly advised to select and plan courses in collaboration with their Art Department advisor, and to contact the intended transfer institution to determine required coursework as early as possible.

Also, please see the **Computer Graphics Technology (CGT)** department's career and technical degrees in Web and Graphic Design, including an Associate of Applied Technology in Web and Graphic Design, the Graphic Design Certificate of Proficiency or the Web Design Certificate of Proficiency.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (5 credits required)

MATH& 107	MATH IN SOCIETY (recommended)	5 cr.
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Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS	3 cr.
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or HPE 266	MIND BODY HEALTH (recommended)	3 cr.
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Humanities (5 credits required)

Humanities * (List A ONLY, must NOT be a major requirement)

Social Sciences (5 credits required) (must NOT be a part of a major requirement)

CMST& 230	SMALL GROUP COMMUNICATION (recommended)	5 cr.
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Natural Sciences (5 credits required) (must be a lab science)

Pre-Major Program Requirements

ART 103	DRAWING I	3 cr.
ART 110	CREATIVITY AND CONCEPT	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 116	COLOR THEORY AND DESIGN	4 cr.
ART 118	TIME-BASED ART AND DESIGN	3 cr.
ART 145	DIGITAL PHOTOGRAPHY I	3 cr.
ART 172	GRAPHIC DESIGN EXPLORATION	4 cr.
ART 173	GRAPHIC DESIGN STUDIO I	4 cr.
ART 174	TYPOGRAPHY	4 cr.
ART 203	THE HUMAN FIGURE I	4 cr.
ART 208	DIGITAL ILLUSTRATION	4 cr.
ART 215	PORTFOLIO DEVELOPMENT	3 cr.
ART 223	ART IN THE TWENTIETH CENTURY	5 cr.
ART 271	PUBLICATION DESIGN	4 cr.
ART 273	GRAPHIC DESIGN STUDIO II	4 cr.
ART 274	GRAPHIC DESIGN STUDIO III	4 cr.
CGT 100	GRAPHIC DESIGN TECHNOLOGY I	4 cr.
CGT 200	GRAPHIC DESIGN TECHNOLOGY II	4 cr.
CGT 214	PROFESSIONAL PRACTICES	3 cr.
or CGT 240	CAPSTONE PRACTICUM	3 cr.

Total Required Credits: 90 Minimum

**World Languages 121, 122 or 123 recommended if you do not have 2 years of high school foreign language or equivalent.*

Automotive Technology

The Automotive Technology program prepares students for maintenance and repair employment opportunities in the automotive industry. Today's automotive technicians need proficient mechanical skills plus a thorough understanding of automotive computer and electrical systems.

Clark College's program utilizes current advanced diagnostic equipment and techniques to prepare students for employment in this increasingly technical industry. Program benefits are as follows:

- Students receive comprehensive instruction consisting of both classroom theory and “real world” shop lab experience in all major automotive systems.
- Learning emphasizes safety, proper work habits, human relations skills, and technical abilities necessary for employment.
- Graduates demonstrate in depth knowledge and skills through demonstrated evaluations that meet required NATEF (National Automotive Technicians Education Foundation) competencies.
- Graduates will be trained for successful completion of industry certification exams.
- Clark College is a National Automotive Technicians Education Foundation (NATEF) certified institution that has been training automotive technicians for over 50 years.

Our Toyota Partnership

Clark College is an award-winning Toyota Technical Education Network (T-TEN) training center. Besides being the basis for Clark's Automotive Technology training curriculum, Toyota's affiliation offers additional options for students to specialize in Toyota vehicle servicing.

Note: The numbers in parentheses on the following curricula represent the course numbers included in the Toyota Certified Technician Program. A student completing the T-TEN Program will receive TCTP credit for the Clark College auto courses also identified with a Toyota course number.

Students must complete all Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section in the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Basic Automotive Technician Skills (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

AUTO 110	AUTOMOTIVE BASICS (TCTP 623, 553)	15 cr.
or AUTO 108	SAFETY, BASICS AND ELECTRIC (TCTP 623)	8 cr.
and AUTO 109	BRAKES (TCTP 552)	7 cr.
AUTO 120	CHASSIS SYSTEMS (TCTP 453, 652)	15 cr.
or AUTO 141	CHASSIS SYSTEMS (TCTP 453, 553, 652) (15 credits required)	1-15 cr.
AUTO 130	ENGINE PERFORMANCE (TCTP 852)	15 cr.
or AUTO 142	ENGINE PERFORMANCE (TCTP 852) (15 credits required)	1-15 cr.

Total Required Credits: 54

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Interpret and verify driver's complaint; verify improper vehicle operation; diagnose and determine needed repairs.
- Restore malfunctioning automotive component(s) or system(s) to operating condition.
- Work collaboratively, professionally, and ethically by expressing opinions with tact, listening to others, shouldering an appropriate share of the workload, and complying with all automotive shop policies.
- Evaluate and use technical information from a variety of resources.
- Comply with personal and environmental safety practices that relate to the automotive industry in accordance with local, state, and federal safety and environmental regulations.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.

- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Advanced Automotive Technician Skills (CP)

General Education Requirement

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

AUTO 210	DRIVE TRAINS AND ENGINES (TCTP 302) (15 credits required)	1-15 cr.
or AUTO 240	MANUAL TRANSMISSIONS, AXLES AND ENGINES (TCTP 302)	1-15 cr.
AUTO 220	ADVANCED POWER TRAINS (TCTP 274)	15 cr.
or AUTO 241	AUTOMATIC TRANSMISSIONS AND ADVANCED ELECTRICAL (TCTP 274)	1-15 cr.
AUTO 230	ADVANCED CHASSIS SYSTEMS (TCTP 752, 256)	15 cr.
or AUTO 242	A/C AND ADVANCED CHASSIS SYSTEMS (TCTP 752, 256)	1-15 cr.

Total Required Credits: 54

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Interpret and verify driver's complaint; verify improper vehicle operation; diagnose and determine needed repairs.
- Restore malfunctioning automotive component(s) or system(s) to operating condition.
- Work collaboratively, professionally, and ethically by expressing opinions with tact, listening to others, shouldering an appropriate share of the workload, and complying with all automotive shop policies.
- Evaluate and use technical information from a variety of resources.
- Comply with personal and environmental safety practices that relate to the automotive industry in accordance with local, state, and federal safety and environmental regulations.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Automotive Technology (AAS)

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Major Area Requirements

AUTO 110	AUTOMOTIVE BASICS (TCTP 623, 553)	15 cr.
or AUTO 108	SAFETY, BASICS AND ELECTRIC (TCTP 623)	8 cr.
and AUTO 109	BRAKES (TCTP 552)	7 cr.
AUTO 120	CHASSIS SYSTEMS (TCTP 453, 652)	15 cr.
or AUTO 141	CHASSIS SYSTEMS (TCTP 453, 553, 652) (15 credits required)	1-15 cr.
AUTO 130	ENGINE PERFORMANCE (TCTP 852)	15 cr.
or AUTO 142	ENGINE PERFORMANCE (TCTP 852) (15 credits required)	1-15 cr.
AUTO 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
AUTO 210	DRIVE TRAINS AND ENGINES (TCTP 302) (15 credits required)	1-15 cr.
or AUTO 240	MANUAL TRANSMISSIONS, AXLES AND ENGINES (TCTP 302)	1-15 cr.
AUTO 220	ADVANCED POWER TRAINS (TCTP 274)	15 cr.
or AUTO 241	AUTOMATIC TRANSMISSIONS AND ADVANCED ELECTRICAL	1-15 cr.
AUTO 230	ADVANCED CHASSIS SYSTEMS (TCTP 752, 256)	15 cr.
or AUTO 242	A/C AND ADVANCED CHASSIS SYSTEMS (TCTP 752, 256)	1-15 cr.
WELD 105	RELATED WELDING FOR AUTOMOTIVE	3 cr.

Total Required Credits: 115-122

Program Outcomes

- Interpret and verify driver's complaint; verify improper vehicle operation; diagnose and determine needed repairs.
- Restore malfunctioning automotive component(s) or system(s) to operating condition.
- Work collaboratively, professionally, and ethically by expressing opinions with tact, listening to others, shouldering an appropriate share of the workload, and complying with all automotive shop policies.
- Evaluate and use technical information from a variety of resources.
- Comply with personal and environmental safety practices that relate to the automotive industry in accordance with local, state, and federal safety and environmental regulations.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.

- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Automotive Technology (AAT)

General Education Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Major Area Requirements

AUTO 110	AUTOMOTIVE BASICS (TCTP 623, 553)	15 cr.
or AUTO 108 and AUTO 109	SAFETY, BASICS AND ELECTRIC (TCTP 623) BRAKES (TCTP 552)	8 cr. 7 cr.
AUTO 120	CHASSIS SYSTEMS (TCTP 453, 652)	15 cr.
or AUTO 141	CHASSIS SYSTEMS (TCTP 453, 652)	1-15 cr.
AUTO 130	ENGINE PERFORMANCE (TCTP 852)	15 cr.
or AUTO 142	ENGINE PERFORMANCE (TCTP 852)	1-15 cr.
AUTO 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
AUTO 210	DRIVE TRAINS AND ENGINES (TCTP 302)	1-15 cr.
or AUTO 240	MANUAL TRANSMISSIONS, AXLES AND ENGINES (TCTP 302)	1-15 cr.
AUTO 220	ADVANCED POWER TRAINS (TCTP 274)	15 cr.
or AUTO 241	AUTOMATIC TRANSMISSIONS AND ADVANCED ELECTRICAL (TCTP 274)	1-15 cr.
AUTO 230	ADVANCED CHASSIS SYSTEMS (TCTP 752, 256)	15 cr.
or AUTO 242	A/C AND ADVANCED CHASSIS SYSTEMS (TCTP 752, 256)	1-15 cr.

Total Required Credits: 109-113

Program Outcomes

- Interpret and verify driver's complaint; verify improper vehicle operation; diagnose and determine needed repairs.
- Restore malfunctioning automotive component(s) or system(s) to operating condition.
- Work collaboratively, professionally, and ethically by expressing opinions with tact, listening to others, shouldering an appropriate share of the workload, and complying with all automotive shop policies.
- Evaluate and use technical information from a variety of resources.
- Comply with personal and environmental safety practices that relate to the automotive industry in accordance with local, state, and federal safety and environmental regulations.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.

- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Toyota Technology (AAS)

The Toyota curriculum is inclusive within the Automotive Technology curriculum. An additional Toyota dealer cooperative work experience or internship is also necessary to complete the Toyota program.

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Major Area Requirements

AUTO 110	AUTOMOTIVE BASICS (TCTP 623, 553)	15 cr.
AUTO 120	CHASSIS SYSTEMS (TCTP 453, 652)	15 cr.
AUTO 130	ENGINE PERFORMANCE (TCTP 852)	15 cr.
AUTO 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
AUTO 210	DRIVE TRAINS AND ENGINES (TCTP 302) (15 credits required)	1-15 cr.
AUTO 220	ADVANCED POWER TRAINS (TCTP 274)	15 cr.
AUTO 230	ADVANCED CHASSIS SYSTEMS (TCTP 752, 256)	15 cr.
WELD 105	RELATED WELDING FOR AUTOMOTIVE	3 cr.

Total Required Credits: 115-122

Program Outcomes

- Use Toyota's 6-step process to verify complaints, determine related symptoms, analyze symptoms, isolate and correct problems, and check for proper operation.
- Represent Toyota/Lexus and their dealers by being competent, highly trained, and ethical Toyota technicians.
- Achieve, maintain, and advance as a Toyota Certified Technician to a Toyota Certified Expert Technician.
- Work as an effective team member in a Toyota/Lexus dealership environment.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.

- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Bioengineering & Chemical Pre-Engineering

Chemical engineers are in the forefront of efforts to make planet Earth a cleaner and healthier place to live, from finding better ways to clean up toxic spills to developing sustainable biofuels. Chemical engineers are in great demand in many industries including: pharmaceuticals, food, chemicals, energy, and all sorts of manufacturing. State environmental health and safety agencies also employ many chemical engineers.

Bioengineering is one of the fastest-growing disciplines. Bioengineers are focused on advancing human health and promoting environmental sustainability. Bioengineers apply quantitative solutions to solve diverse multidisciplinary problems.

BioEngineering & Chemical Pre-Engineering (AST2)

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has this difference from the Articulated Degree defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic Requirements

A. Basic Requirements

1. Communication Skills	5 cr.
2. Mathematics	10 cr.
Two courses at or above introductory calculus level. Third-quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an Engineering faculty advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.	

3. Physics	15 cr.
Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.	
4. Chemistry with Laboratory	5 cr.
B. Distribution Requirements	
1. Humanities/Fine Arts/English & Social Sciences	15 cr.
C. Electives	
1. Elective Courses	
The remaining quarter credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend. For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards, as approved by the Engineering faculty advisor.	

Articulated Degree Requirements

A. Basic Requirements

1. English Composition	5 cr.
2. Mathematics	
Calculus I, II, III - 15 credits Differential Equations - 5 credits	
3. Physics	
Engineering Physics 1, 2, 3 + labs - 15 to 18 credits	
4. Chemistry with Laboratory	
General Chemistry 1, 2, 3 + labs - 15-18 credits Organic Chemistry 1 + lab - 4-6 credits Organic Chemistry 2 + lab OR Biology for Science Majors + lab	

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences	15 cr.
Minimum 15 quarter credits: Minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science for a total of 15 credits.	

C. Electives

1. Elective Courses	14-15 cr.
Engineering (14-15 credits) Select 3 electives as appropriate for intended major and intended baccalaureate institution. Requirements vary by school and program. See an Engineering faculty advisor regarding proper selection.	
<ul style="list-style-type: none"> • Computer Programming- 4-5 credits • Linear Algebra • Calculus IV (Advanced or Multi-variable Calculus) • Technical Writing • Electrical Circuits • Statics • Thermodynamics • Chemical Process, Principles and Calculations • Biology for Science Majors I + labs • Biology for Science Majors II + labs • Organic Chemistry II + labs 	

Clark College Equivalents

A. Basic Requirements

1. Communication Skills

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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2. Mathematics

MATH& 151	CALCULUS I	5 cr.
MATH& 152	CALCULUS II	5 cr.
MATH& 153	CALCULUS III	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.

3. Physics

PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.

4. Chemistry with Laboratory

CHEM& 141	GENERAL CHEMISTRY I	4 cr.
and CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CHEM& 142	GENERAL CHEMISTRY II	4 cr.
and CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 143	GENERAL CHEMISTRY III	4 cr.
and CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.
CHEM& 241	ORGANIC CHEMISTRY I	4 cr.
and CHEM& 251	ORGANIC CHEMISTRY LABORATORY I	1 cr.
CHEM& 242	ORGANIC CHEMISTRY II	4 cr.
and CHEM& 252	ORGANIC CHEMISTRY LABORATORY II	1 cr.
or BIOL& 221	MAJORS ECOLOGY/EVOLUTION	5 cr.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

A course in Economics is recommended (ECON& 201 or 202).
 PHIL& 106 is strongly recommended as the Humanities course.

C. Electives

1. Elective Courses

Other electives as advised dependent on transfer institution.

MATH& 254	CALCULUS IV (Required)	5 cr.
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Notes

A. Basic Requirements

2. Mathematics

Clark requires concurrent enrollment of completion in MATH& 254 when taking MATH221.
 MATH103 and MATH111 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met via COMPASS.

3. Physics

Clark requires concurrent enrollment in PHYS094, 095, and 096.

B. Distribution Requirements

1. Humanities

Courses taken must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GER's/GUR's) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

Total Required Credits: 90-103

Biological Sciences

Biological sciences are the basic foundation for many professions. Upper-division requirements at the transfer institution will determine the area of specialization. Students should work with a faculty advisor to develop a specific program.

Professional Opportunities

Following completion of a Bachelor of Arts or Science Degree at a four-year institution of the student's choice, several avenues of employment or advancement are open. A few of these are:

- Food Processing
- Commercial Fisheries
- Graduate School
- State and Federal Wildlife agencies
- Science teaching at elementary or secondary level
- Environmental Sciences
- Transfer into professional health programs (medical, dental, pharmacy, physical therapy or optometry)
- Veterinary/Animal Science

Clark's Biological Sciences majors have had excellent success in finding placement in graduate programs, health science programs, and professional areas. Clark College offers the first two years of most Biological Sciences majors: Biology, Botany, Forestry, Genetics, Marine Biology, Microbiology, Wildlife, and Zoology. Special emphasis is placed on small class size, individual instruction, field experiences, and undergraduate research opportunities. There is good exchange between the support areas of Chemistry, Geology, and Physics to aid in developing relevant courses.

Biological Sciences (AST1)

This is a suggested program for the first two years of major study in Biological Sciences. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (10 credits required)

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)

CMST& 220	PUBLIC SPEAKING	5 cr.
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or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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Humanities and Social Sciences Requirements**		10 cr.
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Pre-Major Program Requirements

BIOL& 221	MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL& 222	MAJORS CELL/MOLECULAR	5 cr.
BIOL& 223	MAJORS ORGANISMAL PHYS	5 cr.
CHEM& 141	GENERAL CHEMISTRY I	4 cr.
CHEM& 142	GENERAL CHEMISTRY II	4 cr.
CHEM& 143	GENERAL CHEMISTRY III	4 cr.
CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.
MATH& 153	CALCULUS III	5 cr.
or MATH 203	DESCRIPTIVE STATISTICS	3 cr.
and MATH 204	INFERENCE STATISTICS	3 cr.
PHYS& 121	GENERAL PHYSICS I	5 cr.
PHYS& 122	GENERAL PHYSICS II	5 cr.
PHYS& 123	GENERAL PHYSICS III	5 cr.

Recommended Science and Composition Electives

CHEM& 241	ORGANIC CHEMISTRY I	4 cr.
CHEM& 242	ORGANIC CHEMISTRY II	4 cr.
CHEM& 243	ORGANIC CHEMISTRY III	4 cr.
CHEM& 251	ORGANIC CHEMISTRY LABORATORY I	1 cr.
CHEM& 252	ORGANIC CHEMISTRY LABORATORY II	1 cr.
CHEM& 253	ORGANIC CHEMISTRY LABORATORY III	2 cr.
ENGL& 102	ENGLISH COMPOSITION II *	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES *	5 cr.

Science Electives (10-15 credits required)

BIOL 101	ENVIRONMENTAL BIOLOGY	5 cr.
BIOL 208	FIELD STUDIES IN BIOLOGY	1-10 cr.
or BIOL 224	FLOWERING PLANTS OF THE PACIFIC NORTHWEST	5 cr.
BIOL 139	INTRODUCTION TO WILDLIFE	3 cr.
BIOL 140	MAMMALS OF THE NORTHWEST *	3 cr.
or BIOL 141	BIRDS OF THE PACIFIC NORTHWEST	3 cr.
or BIOL 143	INTRODUCTION TO FORESTRY	3 cr.
BIOL 145	REPTILES & AMPHIBIANS OF THE PACIFIC NW	3 cr.
BIOL 146	SURVEY OF BIODIVERSITY	2 cr.

Total Required Credits: 90

*Check with chosen 4-year school.

**Minimum of five (5) credits of coursework in both Humanities and Social Sciences with the additional five (5) credits from either Humanities or Social Sciences.

Biology Education (AST1)

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has this difference from the Articulated Degree defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic Requirements

A. Basic Requirements

1. Communication Skills **5 cr.**

2. Quantitative/Symbolic Reasoning Requirement **5 cr.**
Intermediate algebra proficiency is required.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences **15 cr.**
15 credits of humanities and social science with at least five credits taken from each. Three different subjects required. No more than 5 credits of performance classes are allowed.

2. Science Pre-major Requirement

- Chemistry for science majors sequence (15 quarter credits)
 - Third quarter calculus or approved statistics course (5 quarter credits)
 - Biology for science majors or physics (calculus or non-calculus based) (15 quarter credits)
 - Additional requirements: 10 - 15 quarter credits in physics, geology, organic chemistry, biology, or mathematics, consisting of courses normally taken for science majors (not general education), preferably in a 2- or 3-quarter sequence.
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C. Electives

Additional college-level courses so that total earned is at least 90 credits. May include prerequisites for major courses (e.g. pre-calculus), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

Articulated Degree Requirements

A. Basic Requirements

1. English Composition **5 cr.**

2. Calculus	10 cr.
Intermediate algebra proficiency is required.	
B. Distribution Requirements	
1. Humanities/Fine Arts/English & Social Sciences	15 cr.
5 quarter credits Introductory Speech	
5 quarter credits General Psychology	
2. Science Pre-major Requirement	
• 15 quarter credits General Chemistry	
• 15 quarter credits Organic Chemistry	
• 15 quarter credits of majors level biology	
• 5 quarter credits statistics	

Clark College Equivalents

A. Basic Requirements		
1. Communication Skills		
ENGL& 101	ENGLISH COMPOSITION I	5 cr.
2. Quantitative/Symbolic Reasoning		
MATH& 151	CALCULUS I	5 cr.
MATH& 152	CALCULUS II	5 cr.
B. Distribution Requirements		
1. Humanities/Fine Arts/English & Social Sciences		
CMST& 220	PUBLIC SPEAKING	5 cr.
PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
Plus 5 additional HUM or SS credits		5 cr.
2. Science Pre-major Requirement		
CHEM& 141	GENERAL CHEMISTRY I	4 cr.
CHEM& 141	GENERAL CHEMISTRY I	4 cr.
CHEM& 143	GENERAL CHEMISTRY III	4 cr.
CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.
CHEM& 241	ORGANIC CHEMISTRY I	4 cr.
CHEM& 242	ORGANIC CHEMISTRY II	4 cr.
CHEM& 243	ORGANIC CHEMISTRY III	4 cr.
CHEM& 251	ORGANIC CHEMISTRY LABORATORY I	1 cr.
CHEM& 252	ORGANIC CHEMISTRY LABORATORY II	1 cr.
CHEM& 253	ORGANIC CHEMISTRY LABORATORY III	2 cr.
BIOL& 221	MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL& 222	MAJORS CELL/MOLECULAR	5 cr.
BIOL& 223	MAJORS ORGANISMAL PHYS	5 cr.
MATH 203	DESCRIPTIVE STATISTICS	3 cr.
and MATH 204	INFERENCE STATISTICS	3 cr.
C. Electives		
1. Elective Courses		
EDUC& 201	INTRODUCTION TO EDUCATION Recommended	3 cr.
and EDUC 210	INTRODUCTORY FIELD EXPERIENCE Recommended	3 cr.
PHYS& 221	ENGINEERING PHYSICS Recommended	5 cr.
and PHYS& 222	ENGINEERING PHYSICS Recommended	5 cr.
and PHYS& 223	ENGINEERING PHYSICS Recommended	5 cr.

Notes

A. Basic Requirements

2. Quantitative/Symbolic Reasoning

Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

C. Electives

1. Elective Courses

A maximum of five (5) quarter credits of "gray area" courses will be accepted in the remaining credits category.

Students should consult with baccalaureate institutions on the Physics courses--the addition of these courses may bring the degree total to 105 credits.

Total Required Credits: 105

Biology DTA/MRP (AA)

This pathway is applicable to students planning to prepare for upper-division bachelor's degree majors in Biology. Many students transfer to baccalaureate institutions after completing the Associate Degree Direct Transfer Agreement (DTA); this pathway does not alter that agreement or the possibility that students may continue to follow this path. This Biology MRP streamlines and facilitates preparation for upper-division coursework in Biology across the state.

This document represents an agreement between the following baccalaureate institutions offering bachelor's degrees in Biology or a related field and the community and technical college system. Baccalaureate institutions party to this agreement include: Central Washington University; Eastern Washington University; The Evergreen State College; University of Washington Seattle; Washington State University Pullman; Western Washington University; Saint Martin's University; Seattle University; and Whitworth University.

Where the degree below allows for choice in courses, students are urged to contact potential transfer institutions to ensure that the courses chosen are best for the pathway.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework, and
- As of Fall 2011, Clark requires a course in Oral Communication, and
- Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic DTA Requirement

A. Basic Requirements	
1. Communications Skills	10 cr.
2. Quantitative/Symbolic Reasoning Requirement	5 cr.
Intermediate algebra proficiency is required.	
B. Distribution Requirements	
1. Humanities	15 cr.
2. Social Sciences	15 cr.
3. Natural Sciences (minimum of 15 cr.)	15 cr.

MRP Requirements

A. Basic Requirements	
1. English Composition	10 cr.
2. Mathematics	5 cr.
Calculus I	
B. Distribution Requirements	
1. Humanities	15 cr.
Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.	
2. Social Sciences	15 cr.
Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area.	
3. 30 quarter credits, including:	30 cr.
15 credits general biology (majors level)	
15 credits general chemistry (majors level)	
C. Electives	
1. 15 additional quarter credits	15 cr.

Clark College Equivalents

A. Basic Requirements	
1. Communication Skills	
ENGL& 101 ENGLISH COMPOSITION I	5 cr.
ENGL& 102 ENGLISH COMPOSITION II	5 cr.
2. Quantitative/Symbolic Reasoning Requirement	
MATH& 151 CALCULUS I	5 cr.
B. Distribution Requirements	
1. Humanities as defined in the Clark College catalog	15 cr.
2. Social Sciences as defined in the Clark College catalog	15 cr.
3. Natural Sciences	
BIOL& 221 MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL& 222 MAJORS CELL/MOLECULAR	5 cr.
BIOL& 223 MAJORS ORGANISMAL PHYS	5 cr.
CHEM& 141 GENERAL CHEMISTRY I	4 cr.
CHEM& 142 GENERAL CHEMISTRY II	4 cr.
CHEM& 143 GENERAL CHEMISTRY III	4 cr.
CHEM& 151 GENERAL CHEMISTRY LABORATORY I	1 cr.

CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.

C. Electives

1. 14 additional quarter credits (*note: Clark's chemistry sequence has 16 credits*) **14 cr.**

Notes

A. Basic Requirements

1. May be individualized based on baccalaureate college of choice.
2. Statistics (a course that includes descriptive and inferential statistics) may substitute for Calculus I at some institutions; students are encouraged to check with the transfer institution early in their decision process to confirm requirements.
3. Intermediate Algebra proficiency may be demonstrated by successful completion of a Calculus and/or Statistics course for which Intermediate Algebra is a prerequisite.

B. Distribution Requirements

1. In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their Biology curriculum.
2. In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the social science courses that best support or may be required as prerequisites to their Biology curriculum.
3. A full year sequence at a single college is the best preparation for the baccalaureate biology degree.

C. Electives

1. Electives allow students to include additional courses to prepare for the biology major based on college selection. Examples include a full year sequence of organic chemistry for majors; a full year sequence of physics for science majors; or further math at the pre-calculus level or above or statistics. Students should check with the transfer institution prior to taking any further biology courses beyond the one-year sequence. Some colleges require all continuing biology courses be taken at the 300 level.

Total Required Credits: 90 minimum

Business Administration

The Business Administration program teaches individuals how to maintain a competitive edge in business today through theory and practical applications. There is special emphasis on utilizing technology to solve problems and improve productivity, teamwork, interpersonal skills, and professional workforce behavior.

Whether owning, operating, and/or managing a small or large business, Clark's Business Administration and technical education programs allow the student to specialize in a particular area of business. Graduates have found successful positions in accounting, sales and services, merchandising and management.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

Business Administration (CP)

This certificate is designed to provide basic training in business applications, emphasizing skills that are necessary within the business environment. Full credit for all courses completed for this certificate applies to the Business Administration Associate in Applied Science degree.

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

MATHB 065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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Major Area Requirements

BTEC 100	KEYBOARDING (3 credits required)	1-3 cr.
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BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
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BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
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BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
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BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
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BUS 036	ACCOUNTING APPLICATIONS	3 cr.
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BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
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or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
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BUS 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
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BUS 260	PRINCIPLES OF MARKETING	5 cr.
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MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.
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Total Required Credits: 45-54

Refer to the Degree & Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the general education requirements. To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Communicate effectively using business terminology in written and verbal language.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Identify and demonstrate professional traits and behaviors that apply to job performance in real-world environments.
- Accurately maintain payroll register as required under federal and state laws.
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Administration (AAS)

The Business Administration Applied Science degree is designed for the student who wishes to complete a general business program rather than one of the specialty areas. This degree requires a core of business courses as well as additional courses that can be structured to meet a student's individual needs.

General Education Requirements

Communication Skills (6 credits required)

CMST& 220	PUBLIC SPEAKING	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATHB 065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
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Humanities (3 credits required)

Social Sciences (3 credits required)

ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
or ECON& 202	MACRO ECONOMICS	5 cr.

Natural Sciences (3 credits required)

Major Area Requirements

BTEC 100	KEYBOARDING (3 credits required)	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 036	ACCOUNTING APPLICATIONS	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
BUS 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-5 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.

Additional Major Area Electives

Select sufficient credits from the following areas to reach the degree total of 90 credits:

- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Microcomputer Applications (BTEC - 6 credit maximum)

Total Required Credits: 90

Program Outcomes

- Communicate effectively using business terminology in written and verbal language.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Identify and demonstrate professional traits and behaviors that apply to job performance in real-world environments.
- Accurately maintain payroll register as required under federal and state laws.
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses.
- Use micro- and macroeconomic concepts to analyze domestic and global business situations.

General Education Outcomes

- **Communications:** Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- **Human Relations:** Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- **Computational Skills:** Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- **Health and PE:** Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- **Humanities:** Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- **Social Science:** Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- **Science:** Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Business Administration Transfer to WSU Vancouver (AA)

The broad field of business provides for a wide variety of career opportunities. Some of the professions open to those with a business administration degree are business executive and manager, financial manager, health services manager, hotel and motel manager, public administrator, restaurant manager, and small business operator/entrepreneur.

Typical duties might include developing and administering business plans to increase profits; identifying strategies and implementing policies for maintaining good relations with customers and the community; interacting with other key managers within the organization to establish goals overseeing the finances of a department or the entire organization; and supervising, training and evaluating staff members.

Students may select an area of specialization (e.g., accounting, finance, marketing, management, Human Resources and Management Informational Systems) in which to major as their transfer institution. Students should check with individual colleges to meet specific requirements.

This is a program for the first two years of major study in Business Administration. Contact a WSU Vancouver advisor to determine required coursework as early as possible.

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

Quantitative Skills (5 credits required)

MATH 105	FINITE MATHEMATICS	5 cr.
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Health & Physical Education (3 credits required)

Health & Physical Education	3 cr.
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Oral Communications (5 credits required)

Humanities (15 credits required)

CMST& 220	PUBLIC SPEAKING	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Additional Humanities Courses	10 cr.
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Social Sciences (15 credits required)

ECON& 201	MICRO ECONOMICS	5 cr.
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ECON& 202	MACRO ECONOMICS	5 cr.
PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
or SOC& 101	INTRO TO SOCIOLOGY	5 cr.
Natural Sciences (15 credits required)		
MATH& 148	BUSINESS CALCULUS	5 cr.
Natural Sciences*	10 cr.	

Major Area Requirement

ACCT& 201	PRINCIPLES OF ACCOUNTING I	5 cr.
ACCT& 202	PRINCIPLES OF ACCOUNTING II	5 cr.
ACCT& 203	PRIN OF ACCOUNTING III	5 cr.
BUS 203	DESCRIPTIVE STATISTICS **	3 cr.
BUS 204	INFERENTIAL STATISTICS **	3 cr.
BUS& 201	BUSINESS LAW	5 cr.

General Electives (15 credits required)

Total Required Credits: 90

* Must earn ten (10) credits in addition to MATH& 148 in Natural Science from two different departments. A lab course is required.

**All business majors intending to complete a Clark College AA degree must take BUS 203 and 204. MATH 203 and 204 will NOT meet the requirement for this degree.

Business DTA/MRP (AA)

This pathway is applicable to students planning to prepare for various business majors at universities in Washington state. Effective Fall 2008, this agreement cancels and supersedes the existing statewide Business DTA agreement dated Summer 2003. Prior to Fall 2008, parties to the 2003 Business DTA additionally agree to continue to honor that agreement. Parties to that agreement may honor the April 2006 agreement prior to Fall 2008, if it is advantageous to the student. This agreement shall be subject to review and renewal by all parties not later than Winter 2010.

This document represents the business MRP agreement, an agreement that meets all requirements of Washington's Direct Transfer Agreement, between the baccalaureate institutions offering a Bachelor of Science or Bachelor of Arts in business administration including accounting, management and management information systems. Baccalaureate institutions party to this agreement are: CWU, EWU, UW (all campuses), WSU (all campuses), WWU, Gonzaga, Heritage, PLU, SMU, SPU, SU, and Walla Walla University.

Students need to make early contact with their potential transfer institutions regarding the specific course choices in each area of the agreement where options are listed (Humanities, Social Science, and Business Law or Introduction to Law) and for electives. Students also need to check with their potential transfer institutions regarding the requirement for overall minimum GPA, a higher GPA in a selected subset of courses, or a specific minimum grade in one or more courses such as math or English.

Students planning on transfer to the University of Washington should contact that institution early as Clark College does not currently offer a class that meets the transfer equivalency for Introduction to Law as required by this degree agreement.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework,
- As of Fall 2011, Clark requires a course in Oral Communication, and
- Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic DTA Requirements

A. Basic Requirements

1. Communications Skills	10 cr.
2. Quantitative/Symbolic Reasoning Requirement Intermediate algebra proficiency is required.	5 cr.

B. Distribution Requirements

1. Humanities	15 cr.
2. Social Sciences	15 cr.
3. Natural Sciences	

C. Major Requirements

1. Business courses

D. Electives

1. Elective courses

MRP Requirements

A. Basic Requirements

1. English Composition	10 cr.
2. Quantitative/Symbolic Reasoning Requirement Must include 5 credits of business calculus, calculus 1 or a higher level math that included calculus as a prerequisite. May include finite math or precalculus prerequisites for calculus or other courses to prepare for business calculus.	10 cr.

B. Distribution Requirements

1. Humanities Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.	15 cr.
2. Social Sciences Microeconomics (5 cr.) Macroeconomics (5 cr.) Additional social science - not economics (5 cr.)	15 cr.
3. Natural Sciences Statistics - business statistics preferred (5 cr.) Physical, biological, and/or earth science, including at least one lab course (10 cr.)	15 cr.

C. Major Requirements

1. Business Courses Intro to Financial Accounting (5 cr.) Financial Accounting II (5 cr.) Managerial Accounting (5 cr.) Business Law or Introduction to Law (5 cr.)	20 cr.
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D. Electives**1. Electives****5 cr.****Clark College Equivalents****A. Basic Requirements****1. Communication Skills**

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.
or ENGL& 235	TECHNICAL WRITING	5 cr.

2. Quantitative/Symbolic Reasoning**Course 1**

MATH& 148	BUSINESS CALCULUS	5 cr.
or MATH& 151	CALCULUS I	5 cr.
or MATH& 152	CALCULUS II	5 cr.
or MATH& 153	CALCULUS III	5 cr.
or MATH 215	LINEAR ALGEBRA	5 cr.
or MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
or MATH& 254	CALCULUS IV	5 cr.

Course 2

MATH 103	COLLEGE TRIGONOMETRY	5 cr.
or MATH 105	FINITE MATHEMATICS	5 cr.
MATH 111	COLLEGE ALGEBRA	5 cr.
or MATH& 152	CALCULUS II	5 cr.
or MATH& 153	CALCULUS III	5 cr.
or MATH 215	LINEAR ALGEBRA	5 cr.
or MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
or MATH& 254	CALCULUS IV	5 cr.

B. Distribution Requirements**1. Humanities**

15 quarter credits of Humanities as defined in the Clark College catalog.
(CMST& 220 is strongly recommended)

2. Social Sciences

ECON& 201	MICRO ECONOMICS	5 cr.
ECON& 202	MACRO ECONOMICS	5 cr.
Social Science outside Economics		5 cr.

3. Natural Sciences

BUS 203	DESCRIPTIVE STATISTICS	3 cr.
or MATH 203	DESCRIPTIVE STATISTICS	3 cr.
BUS 204	INFERENTIAL STATISTICS	3 cr.
or MATH 204	INFERENTIAL STATISTICS	3 cr.
Natural Science coursework, including 1 lab as defined by Clark College		10 cr.

C. Major Requirements**1. Business Courses (for all schools except UW)**

ACCT& 201	PRINCIPLES OF ACCOUNTING I	5 cr.
ACCT& 202	PRINCIPLES OF ACCOUNTING II	5 cr.
ACCT& 203	PRIN OF ACCOUNTING III	5 cr.
BUS& 201	BUSINESS LAW	5 cr.

D. Electives**1. Elective Courses****5 cr.**

Notes

A. Basic Requirements

1. Communication Skills

ENGL& 102 is REQUIRED at Eastern Washington University.

B. Distribution Requirements

1. Humanities

Students intending the international business major should consult their potential transfer institutions regarding the level of world language required for admission to the major. 5 credits in world languages may apply to the Humanities requirement.

CMST& 220 is specifically required for WSUV business transfer.

3. Natural Sciences

Students intending the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.

C. Major Requirements

1. Business Courses

Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, and Whitworth.

The following institutions do not require a lower division Business Law course and agree to accept the course taken as part of this degree as a lower division elective, but generally not as an equivalent to the course required at the upper division: Heritage, PLU, SU, and Walla Walla University.

International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in U.S. business law.

D. Electives

1. Elective Courses

Five institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of the elective University Course Equivalent to:

- WSU (all campuses): Management Information Systems MIS 250
 - Gonzaga: Management Information Systems BMIS 235
 - PLU: Computer applications CSCE 120, either an equivalent course or skills test
 - SPU: Spreadsheet BUS 1700, either an equivalent course or skills test
 - WWW: Introduction to Business Computer Systems MIS 220 (for transfer students entering fall 2014)
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Total Required Credits: 90 Minimum

Business Administration-Accounting

Accounting is an essential component of every institution and business organization. Basic accounting skills provided by the one-year certificate or the two-year degree will prove to be valuable in managing financial resources, policies and decisions.

Accounting Clerk (CP)

This program is designed to prepare the student for an entry-level position as an accounting system operator, an accounting clerk, or a bookkeeper. The student learns bookkeeping skills in both the manual and computerized environments.

General Education Requirements

Communication Skills (3 credits required)

BTEC 087

APPLIED OFFICE ENGLISH

3 cr.

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
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Major Area Requirements

BTEC 101	BEGINNING KEYBOARDING * (3 credits required)	1-3 cr.
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or BTEC 190	REFRESHER KEYBOARDING * (3 credits required)	1-3 cr.
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BTEC 135	10-KEY CALCULATOR	1 cr.
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BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
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BTEC 170	EXCEL FOR BUSINESS	3 cr.
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BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
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BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
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BUS 036	ACCOUNTING APPLICATIONS	3 cr.
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BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
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or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
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BUS 130	COMPUTERIZED ACCOUNTING	3 cr.
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BUS 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
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CMST& 220	PUBLIC SPEAKING	5 cr.
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Total Required Credits: 46-50

** Register for BTEC 100.*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Perform all steps of the accounting cycle using both general and specialized journals: record, post, adjust, close, and prepare financial statements for service and merchandising businesses.
- Prepare payroll register.
- Analyze and present financial statements.
- Prepare cash flow statements.
- Manually and using a calculator, perform basic computations to approach practical business problems using appropriate mathematical techniques.
- Use the latest accounting software to perform the steps of the accounting cycle.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Accounting (AAS)

The completion of this two-year program prepares the graduate for entry-level employment in private or public accounting. In addition, this degree provides a solid foundation for the student who is interested in completing a four-year degree in accounting.

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

BUS 203	DESCRIPTIVE STATISTICS	3 cr.
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Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

ECON& 201	MICRO ECONOMICS	5 cr.
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Natural Sciences (3 credits required)

Major Area Requirements

ACCT& 201	PRINCIPLES OF ACCOUNTING I	5 cr.
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ACCT& 202	PRINCIPLES OF ACCOUNTING II	5 cr.
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ACCT& 203	PRIN OF ACCOUNTING III	5 cr.
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BTEC 101	BEGINNING KEYBOARDING *	1-3 cr.
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or BTEC 190	REFRESHER KEYBOARDING *	1-3 cr.
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BTEC 135	10-KEY CALCULATOR	1 cr.
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BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
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BTEC 170	EXCEL FOR BUSINESS	3 cr.
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BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
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or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
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BUS 130	COMPUTERIZED ACCOUNTING	3 cr.
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BUS& 201	BUSINESS LAW	5 cr.
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ECON& 202	MACRO ECONOMICS	5 cr.
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MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Additional Major Area Electives

Select sufficient credits from the following areas to reach the degree total of 90 credits:

- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Microcomputer Applications (BTEC - 6 credit maximum)

Total Required Credits: 90

* Register for BTEC 100.

Program Outcomes

- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses.
- Accurately prepare, interpret, and analyze financial statements using computerized systems for service and merchandising businesses.
- Accurately analyze financial data and information to make business decisions.
- Provide accounting data and information for all types and sizes of businesses, including sole proprietorships, partnerships, and corporations.

- Accurately create and maintain payroll records required under federal and state laws.
- Communicate effectively using verbal, non-verbal and written language with clarity, coherence and purpose.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Business Administration-Management

The supervisory manager has the important role of getting work completed by leading, managing, and motivating people. Clark College offers a comprehensive training program that leads to a Certificate of Achievement in Supervisory Management and provides a major base for the Associate in Applied Science degree. Courses deal with solutions to supervisory problems regularly encountered on the job. This program provides an opportunity for current and potential supervisors to increase and broaden their performance levels and to advance into more responsible positions.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

Management I (CA)

Professionally trained managers and supervisors are vital to achieving success in today’s marketplace. This 12-credit program will teach supervisory techniques to build a positive and productive work environment. Coursework will focus on real management problems faced by large and small businesses, as well as non-profit organizations. Current management concepts will be examined from actual cases, such as developing enthusiasm and creativity among employees, finding a shared vision and encouraging teamwork.

Major Area Requirements

Students must complete **one** course from **four** of the following five course clusters:

Cluster 1		
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
MGMT 103	APPLIED MANAGEMENT SKILLS	3 cr.
MGMT 106	MOTIVATION AND PERFORMANCE	3 cr.

Cluster 2		
MGMT 120	SUPERVISOR AS A TRAINER COACH	3 cr.
MGMT 122	LEADERSHIP PRINCIPLES	3 cr.
Cluster 3		
MGMT 128	HUMAN RESOURCES MANAGEMENT	3 cr.
MGMT 132	LEGAL ISSUES IN EMPLOYEE RELATIONS	3 cr.
Cluster 4		
MGMT 110	CREATIVE PROBLEM SOLVING	3 cr.
MGMT 125	TEAM BUILDING AND GROUP BEHAVIOR	3 cr.
MGMT 133	PRODUCTION AND OPERATIONS MANAGEMENT	3 cr.
Cluster 5		
MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	3 cr.
MGMT 112	CONFLICT MANAGEMENT	2 cr.
		Total Required Credits: 11-14

Program Outcomes

- Basic introduction of management concepts.

Supervisory Management (CA)

Major Area Requirements

MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.
MGMT 103	APPLIED MANAGEMENT SKILLS	3 cr.
MGMT 110	CREATIVE PROBLEM SOLVING	3 cr.
One course in written communication from the following:		
MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	3 cr.
ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
One course in oral communication from the following:		
CMST 212	ORAL COMMUNICATION IN BUSINESS	3 cr.
CMST& 220	PUBLIC SPEAKING	5 cr.
CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Additional Major Area Requirements

Select a minimum of 15 credits:

BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
or BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
MGMT 106	MOTIVATION AND PERFORMANCE	3 cr.
MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	3 cr.
MGMT 112	CONFLICT MANAGEMENT	2 cr.
MGMT 113	HUMOR IN THE WORKPLACE	1 cr.
MGMT 120	SUPERVISOR AS A TRAINER COACH	3 cr.

MGMT 122	LEADERSHIP PRINCIPLES	3 cr.
MGMT 125	TEAM BUILDING AND GROUP BEHAVIOR	3 cr.
MGMT 126	PROJECT MANAGEMENT	4 cr.
MGMT 128	HUMAN RESOURCES MANAGEMENT	3 cr.
MGMT 132	LEGAL ISSUES IN EMPLOYEE RELATIONS	3 cr.
MGMT 133	PRODUCTION AND OPERATIONS MANAGEMENT	3 cr.
MGMT 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
MGMT 280	SELECTED TOPICS	1-5 cr.

Strongly Recommended Electives

BTEC 100	KEYBOARDING	1-3 cr.
MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS (or equivalent)	5 cr.

Total Required Credits: 30-34

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Effectively manage people and resources to meet organizational and institutional goals.
- Design a comprehensive management project with given criteria using latest software.
- Communicate effectively using verbal, non-verbal and written language with clarity, coherence and purpose.

Supervisory Management (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
or MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	3 cr.
and CMST 212	ORAL COMMUNICATION IN BUSINESS	3 cr.
or CMST& 220	PUBLIC SPEAKING (also counts for Humanities)	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION (also counts for Humanities)	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
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Humanities (3 credits required)

Social Sciences (3 credits required)

ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
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Natural Sciences (3 credits required)

Major Area Requirements

BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.

BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
BUS& 201	BUSINESS LAW	5 cr.
ENGL 212	BUSINESS COMMUNICATIONS	3 cr.
or MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	3 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.
MGMT 103	APPLIED MANAGEMENT SKILLS	3 cr.
MGMT 126	PROJECT MANAGEMENT	4 cr.
MGMT 128	HUMAN RESOURCES MANAGEMENT	3 cr.
MGMT 133	PRODUCTION AND OPERATIONS MANAGEMENT	3 cr.

Additional Area Requirements

Select a minimum of 18 credits:

BUS 260	PRINCIPLES OF MARKETING	5 cr.
BUS 115	SMALL BUSINESS MANAGEMENT	3 cr.
BUS 203	DESCRIPTIVE STATISTICS	3 cr.
ENGL 212	BUSINESS COMMUNICATIONS	3 cr.
or BUS 211	BUSINESS COMMUNICATIONS	3 cr.
MGMT 106	MOTIVATION AND PERFORMANCE	3 cr.
MGMT 110	CREATIVE PROBLEM SOLVING	3 cr.
MGMT 112	CONFLICT MANAGEMENT	2 cr.
MGMT 113	HUMOR IN THE WORKPLACE	1 cr.
MGMT 120	SUPERVISOR AS A TRAINER COACH	3 cr.
MGMT 122	LEADERSHIP PRINCIPLES	3 cr.
MGMT 125	TEAM BUILDING AND GROUP BEHAVIOR	3 cr.
MGMT 132	LEGAL ISSUES IN EMPLOYEE RELATIONS	3 cr.
MGMT 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
MGMT 280	SELECTED TOPICS	1-5 cr.

Additional Major Area Electives

Select sufficient credits from the following areas to reach the degree total of 90 credits:

- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Microcomputer Applications (BTEC - 6 credit maximum)

Total Required Credits: 90

Program Outcomes

- Effectively manage people and resources to meet organizational and institutional goals.
- Design a comprehensive management project with given criteria using latest software.
- Demonstrate understanding of the legal environments in business.

- Apply the understanding of human resource issues and functions.
- Communicate effectively using verbal, non-verbal and written language with clarity, coherence and purpose.
- Identify applicable laws in terms of managing human resources.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Business Administration-Sales, Marketing and Customer Service

The certificates and degree in this area are designed to provide students with the basic skills necessary to work for a variety of organizations that focus on the distribution of customer goods and services. Graduates of these specialized certificates have found the acquired skills very valuable in all types of business and non-profit organizations, domestic as well as international.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program listing.

Customer Service (CA)

This program provides students with the following basic customer service skills:

- Develop a positive internal and external organizational/institutional customer climate,
- Develop a long-term customer service strategy to build a strong base for the profit and/or not-for-profit sectors, and
- Understand the entry-level jobs in the customer service field within a short completion time.

Major Area Requirements

BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
or ECON 110	INTRODUCTION TO THE GLOBAL ECONOMY	5 cr.

or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
BUS 110	CUSTOMER SERVICE	3 cr.
BUS 251	PROFESSIONAL SELLING	3 cr.
CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
HDEV 117	COLLEGE SUCCESS	3 cr.
HDEV 186	STRESS MANAGEMENT	1 cr.

Total Required Credits: 29

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Understand and analyze the needs of internal and external customers of for-profit and nonprofit organizations.
- Collaborate in the establishment of rules, procedures and processes to create a positive work environment and to prevent and/or resolve operational issues.

Marketing (AAS)

Marketing provides the critical link between the producers of goods and services and the consumers of those products. Marketing professionals research, design, price, promote, and distribute goods and services that meet the needs of target consumer groups. With the foundation that this program provides, the student will be prepared for an entry-level career in the varied and interesting manufacturing, distribution, and retail fields.

General Education Requirements

Communication Skills (6 credits required)

CMST& 220	PUBLIC SPEAKING	5 cr.
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Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
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or ECON& 202	MACRO ECONOMICS	5 cr.
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Natural Sciences (3 credits required)

Major Area Requirements

BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
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BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
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BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
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or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
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BUS 117	ADVERTISING	3 cr.
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or BUS 217	PRINCIPLES OF ADVERTISING	5 cr.
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BUS& 201	BUSINESS LAW	5 cr.
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BUS 251	PROFESSIONAL SELLING	3 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.

Additional Major Area Electives

Select sufficient credits from the following areas to reach the degree total of 90 credits:

- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Microcomputer Applications (BTEC - 6 credit maximum)

Total Required Credits: 90

Program Outcomes

- Successfully manage a buyer-seller relationship to include service follow-up, using professional selling techniques.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Create an effective business ad to meet the needs of specific target market(s).
- Use micro- and macroeconomics concepts to analyze domestic and global business situations.
- Accurately prepare, interpret, and analyze financial statements using manual and computerized systems for service and manufacturing businesses.
- Accurately maintain payroll register as required under federal and state laws.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Merchandising Management (AAS)

Broadly speaking, merchandising refers to the transfer of products from producers to consumers. With the problems of distribution and merchandising becoming more complex, there is a need for men and women who possess the training necessary for leadership in this marketing/purchasing field. The recommended program is designed to give students the necessary background to advance to positions of managerial responsibility in the field of merchandising.

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)		
MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS (or equivalent)	5 cr.
Human Relations (3 credits required)		
Humanities (3 credits required)		
Social Sciences (3 credits required)		
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
or ECON& 201	MICRO ECONOMICS	5 cr.
Natural Sciences (3 credits required)		

Major Area Requirements

BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
BUS 115	SMALL BUSINESS MANAGEMENT	3 cr.
BUS 116	MERCHANDISING MANAGEMENT	3 cr.
BUS 117	ADVERTISING	3 cr.
or BUS 217	PRINCIPLES OF ADVERTISING	5 cr.
BUS 199	COOPERATIVE WORK EXPERIENCE (optional)	1-5 cr.
BUS& 201	BUSINESS LAW	5 cr.
BUS 251	PROFESSIONAL SELLING	3 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.

Additional Major Area Electives

Select sufficient credits from the following areas to reach the degree total of 90 credits:

- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Microcomputer Applications (BTEC - 6 credit maximum)

Total Required Credits: 90

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.

- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Professional Sales (CP)

The success of most organizations in our economy depends on the ability of sales professionals to sell their products or ideas. Career opportunities are available for qualified applications as manufacturers' representatives, brokers, and industrial and retail salespersons. Successful sales experience can be financially rewarding and can lead to managerial positions.

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

Note: CMST& 230 satisfies the Human Relations requirement if taken as part of the Major Area Requirements.

Major Area Requirements

BTEC 101	BEGINNING KEYBOARDING *	1-3 cr.
or BTEC 190	REFRESHER KEYBOARDING *	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
or BUS 115	SMALL BUSINESS MANAGEMENT	3 cr.
or MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
BUS 116	MERCHANDISING MANAGEMENT	3 cr.
BUS 117	ADVERTISING	3 cr.
or BUS 217	PRINCIPLES OF ADVERTISING	5 cr.
BUS 251	PROFESSIONAL SELLING	3 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.
CMST& 220	PUBLIC SPEAKING	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION [HR]	5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.

Total Required Credits: 45-54

* Register for BTEC 100.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Successfully manage a buyer-seller relationship to include service follow-up, using professional communication and selling techniques.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.

- Create an effective business ad to meet the needs of specific target market(s).
- Accurately prepare financial statements using manual and computerized systems for service and manufacturing businesses.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Administration-Small Business Management

Small Business Management (CP)

This program is designed to provide current and prospective entrepreneurs and small-business owners with a basic foundation in small business management. Coursework includes accounting, business law, marketing, and business plan development. Upon completion of this program, students will be prepared to take on the challenge of starting, owning, and managing a small business or a franchise.

General Education Requirements

Communication Skills (3 credits required)

BTEC 087	APPLIED OFFICE ENGLISH	3 cr.
or BTEC 107	BUSINESS ENGLISH	5 cr.

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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Major Area Requirements

BTEC 100	KEYBOARDING	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 036	ACCOUNTING APPLICATIONS	3 cr.
BUS 115	SMALL BUSINESS MANAGEMENT	3 cr.
BUS 132	HUMAN RESOURCE MGMT FOR THE SMALL BUSINESS	1 cr.
BUS 133	FEASIBILITY PLAN	1 cr.
BUS 135	BUSINESS PLAN	3 cr.
BUS& 201	BUSINESS LAW	5 cr.
BUS 251	PROFESSIONAL SELLING	3 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.

MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.
MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	3 cr.

Total Required Credits: 55-59

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Accurately maintain payroll register as required under federal and state laws.
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses.
- Prepare feasibility and business plans.
- Apply legal and managerial principles related to starting and managing a small business.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Technology-Business Software

Business Technology-Business Software Applications Specialist (AAS)

Many information specialist positions are available in the business world with a wide range of responsibilities. Training for higher-level positions should provide skills in a variety of computer software including Internet as well as a basic knowledge of business.

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL 212	BUSINESS COMMUNICATIONS	3 cr.
or BUS 211	BUSINESS COMMUNICATIONS	3 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Humanities (3 credits required) **

Social Sciences (3 credits required) **

Natural Sciences (3 credits required)

Major Area Requirements

BTEC 010	SPEED AND ACCURACY BUILDING (3 credits required)	1-3 cr.
BTEC 101	BEGINNING KEYBOARDING (3 credits required) *	1-3 cr.
or BTEC 190	REFRESHER KEYBOARDING (3 credits required) *	1-3 cr.
BTEC 107	BUSINESS ENGLISH	5 cr.
BTEC 122	WORD FOR BUSINESS	5 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE ****	1-3 cr.
or BTEC 147	PROFESSIONAL SELF-DEVELOPMENT ***	2 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE ****	1-3 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE ****	1-3 cr.
BTEC 155	INTRODUCTION TO OFFICE PUBLISHING TOOLS	3 cr.
BTEC 165	POWERPOINT PRESENTATION	3 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.
BTEC 175	ACCESS FOR BUSINESS	3 cr.
BTEC 211	ADMINISTRATIVE PROCEDURES	5 cr.
BTEC 212	E-COMMERCE: INTRO TO BUSINESS ON THE WEB	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.
CTEC 115	INTERNET RESEARCH AND LIVING ONLINE	2 cr.

Total Required Credits: 92-95

* Register for BTEC 100.

** CMST courses may not count for more than two distribution areas of general education requirements. CMST& 210 can count for Humanities or Social Sciences; CMST& 230 can count for Humanities.

***BTEC 147 may be substituted for your first term of Seminar.

****Minimum of 6 credits must be earned in Cooperative Work Experience.

Program Outcomes

- Use common office software to solve problems and present the results in a “business-ready” manner.
- Professionally employ appropriate interpersonal skills with sensitivity to ethnic and cultural differences in dealing with customers or fellow employees.
- Utilize time-management skills and set priorities while organizing and scheduling varied office activities.
- Edit business documents implementing proper grammar, spelling, word usage, and sentence structure.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Computer Application Skills - Module I (CERT)

Professional skills that can prepare students for the job market in just three months are available through the Clark College Business Technology department.

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Major Area Requirements

Prerequisite: Keyboarding 30 wpm

BTEC 122	WORD FOR BUSINESS	5 cr.
BTEC 165	POWERPOINT PRESENTATION	3 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.

Total Required Credits: 11

Computer Application Skills - Module II (CERT)

Professional skills that can prepare students for the job market in just three months are available through the Clark College Business Technology department.

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Major Area Requirements

BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BTEC 175	ACCESS FOR BUSINESS	3 cr.
MGMT 126	PROJECT MANAGEMENT	4 cr.
		Total Required Credits: 10

Computer Application Skills - Module III (CERT)

Professional skills that can prepare students for the job market in just three months are available through the Clark College Business Technology department.

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Major Area Requirements

BTEC 160	WEB PAGE INTRODUCTION:	3 cr.
BTEC 212	E-COMMERCE: INTRO TO BUSINESS ON THE WEB	3 cr.
CTEC 115	INTERNET RESEARCH AND LIVING ONLINE	2 cr.
CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
		Total Required Credits: 12

Business Technology-Office Software Applications (CP)

This program is designed for students who have had prior training in computer software applications and office skills. Students with no prior training should consider entering the two-year program.

Prerequisites for enrollment: Ability to keyboard at 30 wpm (certified by a keyboarding test) and successful completion of ENGL& 101.

Students will be required to work part-time in an office during their last quarter.

Students must maintain a cumulative grade point average of 2.00 to receive this certificate.

General Education Requirements

Communication Skills (3 credits required)

BUS 211	BUSINESS COMMUNICATIONS	3 cr.
or ENGL 212	BUSINESS COMMUNICATIONS	3 cr.

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BTEC 122	WORD FOR BUSINESS	5 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE (2-3 credits required)	1-3 cr.
or BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
BTEC 155	INTRODUCTION TO OFFICE PUBLISHING TOOLS	3 cr.
BTEC 165	POWERPOINT PRESENTATION	3 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BTEC 175	ACCESS FOR BUSINESS	3 cr.
BTEC 212	E-COMMERCE: INTRO TO BUSINESS ON THE WEB	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.

Total Required Credits: 47-48

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Use common office software to solve problems and present the results in a “business-ready” manner.
- Professionally employ appropriate interpersonal skills with sensitivity to ethnic and cultural differences in dealing with customers or fellow employees.
- Utilize time-management skills and set priorities while organizing and scheduling varied office activities.
- Edit business documents implementing proper grammar, spelling, word usage, and sentence structure.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Technology-Legal Office

The dynamics of today's legal profession require a special class of employee who is a key member of the legal team and able to deal with the complex laws in our nation. Office professionals working in the legal field must be competent in computer applications software and legal document preparation. Clark Business Technology courses provide a solid foundation in using computers for all business and office applications.

A legal assistant/paralegal cannot give legal advice, represent a client in court, set a fee, or accept a case, functions generally considered the practice of law.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Business Technology-Legal Office (CP)

This program is designed for students who have had prior training in keyboarding. The program will build upon that skill, provide knowledge of legal terminology, and improve the ability to prepare legal forms.

If they have had no prior training, students should consider entering the two-year program. Prerequisites for enrollment: one year of keyboarding in high school or 55 wpm certified by taking a keyboarding test. Students will work in a law office part-time in the last quarter.

General Education Requirements

Communication Skills (3 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.
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Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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Major Area Requirements

BTEC 102	DOCUMENT FORMATTING (3 credits required)	1-3 cr.
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BTEC 122	WORD FOR BUSINESS	5 cr.
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BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
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BTEC 135	10-KEY CALCULATOR	1 cr.
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BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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and BTEC 199	COOPERATIVE WORK EXPERIENCE (2-3 credits required)	1-3 cr.
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BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
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PRLE 101	INTRODUCTION TO LEGAL THEORY	3 cr.
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PRLE 102	LEGAL ETHICS	3 cr.
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PRLE 103	LEGAL RESEARCH	3 cr.
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PRLE 151	LEGAL DOCUMENT PREPARATION	3 cr.
PRLE 209	INSURANCE CLAIMS CASE PREPARATION	3 cr.

Total Required Credits: 51-52

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

General Education Outcomes

- **Communications:** Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- **Human Relations:** Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- **Computational Skills:** Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Technology-Legal Administrative Assistant (AAS)

The legal administrative assistant prepares legal papers, summons, complaints, motions, and subpoenas. Specialized training includes the terminology and skills necessary to meet the demands of a legal administrative assistant. Students are trained for employment with a law firm or law-related office such as corporate legal departments of business firms, banks, insurance companies, and financial institutions. Better than average growth is anticipated for this occupation in the state, while a 25% increase is expected in the next decade.

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL 212	BUSINESS COMMUNICATIONS	3 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.

Humanities (3 credits required) **

Social Sciences (3 credits required) **

Natural Sciences (3 credits required)

Major Area Requirements

BTEC 010	SPEED AND ACCURACY BUILDING (3 credits required)	1-3 cr.
BTEC 101	BEGINNING KEYBOARDING * (3 credits required)	1-3 cr.
or BTEC 190	REFRESHER KEYBOARDING * (3 credits required)	1-3 cr.
BTEC 102	DOCUMENT FORMATTING (3 credits required)	1-3 cr.
BTEC 107	BUSINESS ENGLISH	5 cr.
BTEC 122	WORD FOR BUSINESS	5 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.

or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE (2-3 credits required)	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.
BTEC 175	ACCESS FOR BUSINESS	3 cr.
BTEC 211	ADMINISTRATIVE PROCEDURES	5 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
PRLE 101	INTRODUCTION TO LEGAL THEORY	3 cr.
PRLE 102	LEGAL ETHICS	3 cr.
PRLE 103	LEGAL RESEARCH	3 cr.
PRLE 151	LEGAL DOCUMENT PREPARATION	3 cr.
PRLE 209	INSURANCE CLAIMS CASE PREPARATION	3 cr.

Total Required Credits: 92-93

** Register for BTEC 100.*

*** CMST courses may not count for more than two distribution areas of general education requirements. CMST& 210 can count for Humanities or Social Sciences; CMST& 230 can count for Humanities.*

General Education Outcomes

- **Communications:** Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- **Human Relations:** Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- **Computational Skills:** Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- **Health and PE:** Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- **Humanities:** Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- **Social Science:** Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- **Science:** Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Business Technology-Medical Assistant

The Medical Assistant program is a four-quarter program that prepares students for both front-office clerical and back-office clinical medical assistant responsibilities. Students may take additional required courses to obtain an Associate Degree. Clark College's Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). Successful graduates of Clark College's Medical Assisting Program are eligible to sit for the American Association of Medical Assistants (AAMA) Certified Medical Assistant Examination. Upon passing the exam, graduates will receive the Certified Medical Assistant (CMA) credential from the AAMA. This credential is recognized nationally by healthcare institutions. For more information refer to the following websites:

Commission on Accreditation of Allied Health Education Programs

www.caahep.org
1361 Park Street
Clearwater, FL 33756
727-210-2350

American Association of Medical Assistants

www.aama-ntl.org

Although applications are accepted at any time, only 30 applicants will be selected. Candidates who meet the preliminary requirements will be considered for winter quarter entry. Minimum Requirements: • Complete the Medical Assisting Application and Clark College Application and submit to the Admissions Office.

- Complete with a 2.0 or above all Preliminary Required Courses.
- Submit official high school transcript in sealed envelope or GED scores and official college transcript (s) from all colleges attended. Course credit hours and equivalency will be determined by Clark College. No applicant will be considered until all transcripts are received.
- Take the Clark College COMPASS test. Call (360)992-2648 for more information. The following scores or equivalent coursework are required prior to program entry: • COMPASS score of 31 or higher in Math (Numerical Skills), OR completion of Math 030 or Math 065 with 2.0 or above. • COMPASS score of 49 OR completion of ENGL 097 with a 2.0 or above.
- COMPASS score of 64 or high OR completion of READ 083 with a 2.0 or above.

Program Progression:

- Obtain a complete physical to verify proof of fitness. Contact the Health Services Center at Clark College or a personal physician for the physical. Submit physical results to the Medical Office Technology program office.
- Take sequentially numbered courses in order. *Note: Some courses are offered during one (1) specific quarter each year.*
- Complete all program courses with a minimum grade of “C” or better.
- Maintain a cumulative GPA of 2.00 or higher.
- Do not repeat any required program course more than once.
- Provide proof of all required immunization before registering for Medical Office Clinical Procedures I (BMED 163).
- Complete or take concurrently all Medical Assistant Program courses before registering for Medical Assistant Directed Practice (BMED 166).
- Before they can progress into BMED 166 (Medical Assistant Directed Practice [summer quarter]), Medical Assistant students must provide a FBI Criminal Background Check dated no earlier than 30 days prior to the first day of class.

Business Technology-Medical Assistant (CP)

General Education Requirements

Communication Skills (3 credits required)

BTEC 087	APPLIED OFFICE ENGLISH	3 cr.
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Computational Skills (3 credits required)

HEOC 011	MATH FOR MEDICATION ADMINISTRATION	1 cr.
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Human Relations (3 credits required)

BMED 166	MEDICAL ASSISTANT DIRECTED PRACTICE **	6 cr.
BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.

Major Area Requirements

BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO THE STUDY OF DISEASE	5 cr.
BMED 115	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES	6 cr.
BMED 129	MEDICAL REIMBURSEMENT	5 cr.
BMED 134	MEDICAL OFFICE SEMINAR	1 cr.
BMED 137	THERAPEUTIC COMM SKILLS FOR HEALTH PROF	3 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
BMED 139	CMA EXAMINATION REVIEW SEMINAR	1 cr.
BMED 163	MEDICAL OFFICE CLINICAL PROCEDURES I (with lab)	6 cr.
BMED 164	MEDICAL OFFICE CLINICAL PROCEDURES II (with lab)	6 cr.
BTEC 100	KEYBOARDING (3 credits required)	1-3 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	3 cr.
and HEOC 101	BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB	1 cr.
HEOC 120	AIDS EDUCATION	1 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.
HEOC 160	LABORATORY PROCEDURES FOR THE MEDICAL OFFICE (with lab)	4 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.

Recommended Electives

BMED 130	MEDICAL CODING - CPT/HCPCS	4 cr.
BMED 132	MEDICAL CODING ICD-9-CM/ICD-10	5 cr.
HEOC 115	PHLEBOTOMY EDUCATION (with lab)	3 cr.
HEOC 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.

Phlebotomy practicum required for phlebotomy certificate

Total Required Credits: 74

* Students pursuing the A.A.S. degree should take BIOL 164/165 or another approved science elective. HEOC 100/101 will not satisfy degree requirements as outlined in the Clark College catalog.

** Directed Practice is a non-paid, supervised work experience.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances).
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances).
- Apply policies and procedures for office management.
- Demonstrate the ability to work as a team member to accomplish a task.

- Communicate effectively with peers, patients, and health care professionals through written and oral communications.
- Accurately and effectively demonstrate clinical skills required of the medical assistant.
- Successfully complete all criteria necessary for taking the CMA Exam.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Technology-Medical Assistant (AAS)

General Education Requirements

Communication Skills (6 credits required)

BTEC 087	APPLIED OFFICE ENGLISH	3 cr.
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Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

BMED 166	MEDICAL ASSISTANT DIRECTED PRACTICE**	6 cr.
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Humanities (3 credits required)

Social Sciences (3 credits required)

PSYC& 100	GENERAL PSYCHOLOGY (recommended)	5 cr.
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or PSYC& 200	LIFESPAN PSYCHOLOGY (recommended)	5 cr.
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Natural Sciences (3 credits required)

Major Area Requirements

BMED 110	MEDICAL TERMINOLOGY I	3 cr.
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BMED 111	MEDICAL TERMINOLOGY II	3 cr.
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BMED 112	INTRODUCTION TO THE STUDY OF DISEASE	5 cr.
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BMED 115	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES	6 cr.
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BMED 129	MEDICAL REIMBURSEMENT	5 cr.
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BMED 132	MEDICAL CODING ICD-9-CM/ICD-10	5 cr.
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BMED 134	MEDICAL OFFICE SEMINAR	1 cr.
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BMED 137	THERAPEUTIC COMM SKILLS FOR HEALTH PROF	3 cr.
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BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
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BMED 139	CMA EXAMINATION REVIEW SEMINAR	1 cr.
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BMED 163	MEDICAL OFFICE CLINICAL PROCEDURES I (with lab)	6 cr.
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BMED 164	MEDICAL OFFICE CLINICAL PROCEDURES II (with lab)	6 cr.
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BTEC 100	KEYBOARDING (3 credits required)	1-3 cr.
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BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
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BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.
HEOC 011	MATH FOR MEDICATION ADMINISTRATION	1 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	3 cr.
and HEOC 101	BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB	1 cr.
HEOC 120	AIDS EDUCATION	1 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.
HEOC 160	LABORATORY PROCEDURES FOR THE MEDICAL OFFICE (with lab)	4 cr.

Recommended Electives

BMED 130	MEDICAL CODING - CPT/HCPCS	4 cr.
BMED 132	MEDICAL CODING ICD-9-CM/ICD-10	5 cr.
HEOC 115	PHLEBOTOMY EDUCATION (with lab)	3 cr.
HEOC 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.

Phlebotomy practicum required for phlebotomy certificate.

Total Required Credits: 97

**Students pursuing the A.A.S. degree should take BIOL 164/165 or another approved science elective. HEOC 100/101 will not satisfy degree requirements as outlined in the Clark College catalog.*

*** Directed practice is a non-paid, supervised work experience.*

Refer to the Degree and Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the general education requirements.

Program Outcomes

- Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances).
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances).
- Apply policies and procedures for office management.
- Demonstrate the ability to work as a team member to accomplish a task.
- Communicate effectively with peers, patients, and health care professionals through written and oral communications.
- Accurately and effectively demonstrate clinical skills required of the medical assistant.
- Successfully complete all criteria necessary for taking the CMA Exam.
- Demonstrate lifelong learning.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.

- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Business Technology-Medical Information

Professional skills that can prepare students for the job market in just three months are available through the Clark College Business Technology department.

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as the student's schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript.

Business Technology-Health Information Assistant (CP)

This program trains individuals to work in a medical record department in a variety of health care settings. Individuals may also work as a health unit coordinator (unit secretary) in a hospital. Health information assistants assemble medical records; analyze records for completeness; file, retrieve and protect medical records; release patient information; maintain health care statistics; enter patient data; and do some basic coding.

General Education Requirements

Communication Skills (3 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Computational Skills (3 credits required)

BMED 040	MATH FOR MEDICAL OFFICE ADMINISTRATORS	1 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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or CMST 212	ORAL COMMUNICATION IN BUSINESS	3 cr.
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Major Area Requirements

BIOL 164	HUMAN BIOLOGY	4 cr.
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BIOL 165	HUMAN BIOLOGY LAB	1 cr.
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BMED 100	SURVEY OF HEALTH CARE DELIVERY	3 cr.
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BMED 110	MEDICAL TERMINOLOGY I	3 cr.
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BMED 111	MEDICAL TERMINOLOGY II	3 cr.
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BMED 112	INTRODUCTION TO THE STUDY OF DISEASE	5 cr.
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BMED 129	MEDICAL REIMBURSEMENT	5 cr.
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BMED 130	MEDICAL CODING - CPT/HCPCS	4 cr.
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BMED 132	MEDICAL CODING ICD-9-CM/ICD-10	5 cr.
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BMED 133	INTERMEDIATE MEDICAL CODING	5 cr.
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BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
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BMED 140	LEGAL ASPECTS OF HEALTH INFORMATION	2 cr.
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BMED 222	HEALTH INFORMATION PROCEDURES	5 cr.
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BMED 299	CAPSTONE	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.

Total Required Credits: 67-69

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Successfully complete all criteria necessary for admission into the second year of Accredited Health Information Management (through Shoreline CC).
- Apply principles of the health information management in a health care setting.
- Demonstrate the ability to work as a team member to accomplish a task.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Technology-Medical Billing/Coding Specialist (CP)

The Medical Billing/Coding Specialist program prepares individuals for employment in the areas of medical insurance, physicians' office coding, and health care claims processing. This program also serves the needs of health care personnel interested in upgrading their professional skills. Training in medical billing, CPT-4, ICD-9-CM coding, and processing of insurance claims are included in the curriculum. Students may be enrolled in the program on a full-time or part-time basis. Graduates have marketable skills that will be in demand well into the 21st century. They are employed in physicians' offices, insurance companies, pharmacies, private medical laboratories, medical billing services, long-term care facilities, and hospitals.

General Education Requirements

Communication Skills (3 credits required)

BTEC 087	APPLIED OFFICE ENGLISH	3 cr.
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Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

BMED 226	DIRECTED PRACTICE *	3 cr.
BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.

Major Area Requirements

BMED 100	SURVEY OF HEALTH CARE DELIVERY	3 cr.
BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO THE STUDY OF DISEASE	5 cr.
BMED 129	MEDICAL REIMBURSEMENT	5 cr.
BMED 130	MEDICAL CODING - CPT/HCPCS	4 cr.

BMED 132	MEDICAL CODING ICD-9-CM/ICD-10	5 cr.
BMED 133	INTERMEDIATE MEDICAL CODING	5 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
BMED 140	LEGAL ASPECTS OF HEALTH INFORMATION	2 cr.
BMED 222	HEALTH INFORMATION PROCEDURES	5 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
BIOL 164	HUMAN BIOLOGY	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB	1 cr.
or HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY	3 cr.
and HEOC 101	BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB	1 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.

Recommended Elective (Not Required)

BUS 110	CUSTOMER SERVICE	3 cr.
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Total Required Credits: 64-65

**Directed Practice is a non-paid, supervised work experience.*

Refer to the Degree and Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the general education requirements. To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Demonstrate use of medical office software to complete medical office tasks (billing and coding).
- Apply policies and principles of medical reimbursement.
- Accurately code using ICD-9 and CPT coding principles.
- Demonstrate the ability to work as a team member to accomplish a task.
- Communicate effectively with peers, patients, and health care professionals through written and oral communications.
- Accurately process medical billing claims.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Business Technology-Medical Office

The personal satisfaction gained from working in the medical office profession cannot be measured by material benefits alone. With the growing need for adequate medical care, qualified workers who know the business field and possess necessary medical-associated knowledge can find jobs in physicians' offices, clinics, hospitals, long-term facilities, health agencies, insurance companies, and other non-traditional health care settings. The availability of these positions continues to increase as patients draw on government aid and insurance programs to fund their health care and as health information becomes an increasingly vital element for the financing and quality management of health care.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Business Technology-Medical Office Specialist (AAS)

General Education Requirements

Communication Skills (6 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.
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Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

(if not CMST& 210 or 230)

Humanities (3 credits required)

CMST& 220	PUBLIC SPEAKING	5 cr.
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or CMST& 230	SMALL GROUP COMMUNICATION (also HR or SS)	5 cr.
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or CMST& 210	INTERPERSONAL COMMUNICATION (also HR)	5 cr.
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Social Sciences (3 credits required)

(if not CMST& 230)

Natural Sciences (3 credits required)

BIOL 164	HUMAN BIOLOGY	4 cr.
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and BIOL 165	HUMAN BIOLOGY LAB	1 cr.
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Major Area Requirements

BMED 100	SURVEY OF HEALTH CARE DELIVERY	3 cr.
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BMED 110	MEDICAL TERMINOLOGY I	3 cr.
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BMED 111	MEDICAL TERMINOLOGY II	3 cr.
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BMED 112	INTRODUCTION TO THE STUDY OF DISEASE	5 cr.
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BMED 115	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES	6 cr.
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BMED 129	MEDICAL REIMBURSEMENT	5 cr.
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BMED 130	MEDICAL CODING - CPT/HCPCS	4 cr.
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BMED 132	MEDICAL CODING ICD-9-CM/ICD-10	5 cr.
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BMED 133	INTERMEDIATE MEDICAL CODING	5 cr.
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BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
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BMED 140	LEGAL ASPECTS OF HEALTH INFORMATION	2 cr.
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BMED 222	HEALTH INFORMATION PROCEDURES	5 cr.
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BMED 226	DIRECTED PRACTICE	3 cr.
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BTEC 101	BEGINNING KEYBOARDING * (3 credits required)	1-3 cr.
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or BTEC 190	REFRESHER KEYBOARDING * (3 credits required)	1-3 cr.
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BTEC 122	WORD FOR BUSINESS	5 cr.
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BTEC 135	10-KEY CALCULATOR	1 cr.
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BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
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BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.

Recommended Electives (Not Required)

BMED 137	THERAPEUTIC COMM SKILLS FOR HEALTH PROF	3 cr.
BUS 110	CUSTOMER SERVICE	3 cr.

Total Required Credits: 98

* Register for BTEC 100

Refer to the Degree & Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Program Outcomes

- Demonstrate use of medical office software to complete medical office tasks (scheduling, patient information management, billing and office finances).
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances).
- Accurately code using ICD-9 and CPT coding principles.
- Apply policies and procedures for office management.
- Demonstrate the ability to work as a team member to accomplish a task.
- Communicate effectively with peers, patients, and health care professionals through written and oral communications.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Business Technology-Medical Receptionist (CA)

A medical receptionist's primary duties consist of medical reception, appointment scheduling, and admitting patients in a medical office or hospital. Other duties include transcription, billing, filing, and general office duties. The field is constantly expanding with improving medical treatment and increasing access to medical care.

Major Area Requirements

BMED 040	MATH FOR MEDICAL OFFICE ADMINISTRATORS	1 cr.
BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.

BMED 115	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES	6 cr.
BMED 134	MEDICAL OFFICE SEMINAR	1 cr.
BMED 222	HEALTH INFORMATION PROCEDURES	5 cr.
BMED 225	DIRECTED PRACTICE **	2 cr.
BTEC 101	BEGINNING KEYBOARDING * (3 credits required)	1-3 cr.
or BTEC 190	REFRESHER KEYBOARDING * (3 credits required)	1-3 cr.
BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
CMST& 220	PUBLIC SPEAKING	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.

Recommended Electives (Not Required)

BMED 137	THERAPEUTIC COMM SKILLS FOR HEALTH PROF	3 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.

Total Required Credits: 35

* Register for BTEC 100.

** Directed Practice is a non-paid, supervised work experience.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Demonstrate basic use of medical office software to complete medical office tasks (scheduling, patient information management, billing and office finances).
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances).
- Demonstrate the ability to work as a team member to accomplish a task.
- Communicate effectively with peers, patients, and health care professionals through written and oral communications.

Business Technology-Office

The office professional is indispensable in every business, industry, and agency in the United States. Career advancement is readily available for the individual who develops a high degree of skill in technology, management, communication, and human relations.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Business Technology-Administrative Assistant (AAS)

Today, administrative assistants are a part of the management team. They perform and coordinate office activities and ensure that information gets disseminated in a timely fashion to staff and clients. Management and other support staff rely on them to keep administrative operations under control. The administrative assistant is an entry-level professional administrator in many organizations.

Administrative assistants must be proficient in keyboarding and communication skills (verbal and written) and possess good interpersonal communication skills. Continuing technological changes also require them to be adaptable and versatile. Training should include a thorough knowledge of computer applications.

Nationally, this occupation is expected to grow more than the average for all occupations, while an average growth is anticipated in the state of Washington through the next decade.

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL 212	BUSINESS COMMUNICATIONS	3 cr.
or BUS 211	BUSINESS COMMUNICATIONS	3 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Humanities (3 credits required) **

Social Sciences (3 credits required) **

Natural Sciences (3 credits required)

Major Area Requirements

BTEC 010	SPEED AND ACCURACY BUILDING (3 credits required)	1-3 cr.
BTEC 101	BEGINNING KEYBOARDING (3 credits required) *	1-3 cr.
or BTEC 190	REFRESHER KEYBOARDING (3 credits required) *	1-3 cr.
BTEC 102	DOCUMENT FORMATTING (3 credits required)	1-3 cr.
BTEC 107	BUSINESS ENGLISH	5 cr.
BTEC 122	WORD FOR BUSINESS	5 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE ****	1-3 cr.
or BTEC 147	PROFESSIONAL SELF-DEVELOPMENT ***	2 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE ****	1-3 cr.

BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
and BTEC 199	COOPERATIVE WORK EXPERIENCE ****	1-3 cr.
BTEC 155	INTRODUCTION TO OFFICE PUBLISHING TOOLS	3 cr.
BTEC 165	POWERPOINT PRESENTATION	3 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.
BTEC 175	ACCESS FOR BUSINESS	3 cr.
BTEC 211	ADMINISTRATIVE PROCEDURES	5 cr.
BTEC 212	E-COMMERCE: INTRO TO BUSINESS ON THE WEB	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.

Total Required Credits: 93-97

** Register for BTEC 100.*

*** CMST courses may not count for more than two distribution areas of general education requirements. CMST& 210 can count for Humanities or Social Sciences; CMST& 230 can count for Humanities.*

**** BTEC 147 may be substituted for your first term of Seminar.*

***** Minimum of 6 credits must be earned in Cooperative Work Experience.*

Program Outcomes

- Create, compose, and edit correspondence, reports, memoranda, tables, spreadsheets, charts, and database reports.
- Use Windows to create and organize files and directories.
- Professionally perform procedures used in general offices.
- Identify functions of business organizations and management in the global marketplace.
- Use computational skills to solve business problems.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Business Technology-Office Assistant (CP)

An office assistant compiles data and keyboards on a computer in performance of clerical duties to maintain business records and reports. A variety of other duties are usually performed, including filing, sorting mail, answering the telephone, posting data, and computing amounts on calculators.

General Education Requirements

Communication Skills (3 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.
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Computational Skills (3 credits required)

MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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Major Area Requirements

BTEC 101	BEGINNING KEYBOARDING (3 credits required) *	1-3 cr.
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or BTEC 190	REFRESHER KEYBOARDING (3 credits required) *	1-3 cr.
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BTEC 102	DOCUMENT FORMATTING (3 credits required)	1-3 cr.
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BTEC 122	WORD FOR BUSINESS	5 cr.
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BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
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BTEC 135	10-KEY CALCULATOR	1 cr.
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BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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and BTEC 199	COOPERATIVE WORK EXPERIENCE ***	1-3 cr.
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or BTEC 147	PROFESSIONAL SELF-DEVELOPMENT **	2 cr.
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BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
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and BTEC 199	COOPERATIVE WORK EXPERIENCE ***	1-3 cr.
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BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
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BTEC 211	ADMINISTRATIVE PROCEDURES	5 cr.
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Recommended Elective (Not Required)

BTEC 010	SPEED AND ACCURACY BUILDING	1-3 cr.
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Total Required Credits: 48-50

* Register for BTEC 100.

**BTEC 147 may be substituted for your first term of Seminar.

***Minimum of 3 credits must be earned in Cooperative Work Experience.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Produce professional documents using word-processing, spreadsheet, graphics, and database software.
- Produce and edit business documents implementing proper grammar, spelling, word usage, and sentence structure.
- Utilize time-management skills and set priorities while organizing and scheduling varied office activities.
- Create and maintain accurate filing systems (alpha, numeric, subject, and geographic) with paper and electronic records.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Office Skills - Module I (CERT)

Professional skills that can prepare you for the job market in just three months are available through the Clark College Business Technology department.

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Major Area Requirements

BTEC 087	APPLIED OFFICE ENGLISH	3 cr.
BTEC 100	KEYBOARDING (3 credits required)	1-3 cr.
or BTEC 190	REFRESHER KEYBOARDING (3 credits required)	1-3 cr.
		Total Required Credits: 6

Program Competencies

- Proficient in using English, spelling words correctly in business correspondence and communication.
- Proficient in basic writing skills for business letters and memorandums including word usage, grammar, sentence structure, and punctuation.
- Proficient at keyboarding business documents including business letters, memorandums, tables and reports using Microsoft Word at a minimum keyboarding speed of 30 wpm.

Office Skills - Module II (CERT)

Professional skills that can prepare you for the job market in just three months are available through the Clark College Business Technology department.

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of In-

struction. The courses can be taken simultaneously or individually as your schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Major Area Requirements

BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
or BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
Total Required Credits: 8-10		

Program Competencies

- Proficient in using indexing rules, coding, and filing for alphabetic, numeric, geographic, and subject filing systems.
- Knowledge of records storage including equipment and supplies.
- Knowledge of professional concepts for individuals in business including customer service skills, interpersonal communications, work ethics, team building, job applications, interviewing techniques, resumes, and professional attire.
- Ability to produce routine business documents using Microsoft Office.

Office Skills - Module III (CERT)

Professional skills that can prepare you for the job market in just three months are available through the Clark College Business Technology department.

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. Certificates of Completion are not recorded on the student's Clark College transcript.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Major Area Requirements

BTEC 122	WORD FOR BUSINESS	5 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 141	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 143	BUSINESS TECHNOLOGY SEMINAR	2 cr.
or BTEC 145	BUSINESS TECHNOLOGY SEMINAR	2 cr.
BTEC 199	COOPERATIVE WORK EXPERIENCE (3 credits required)	1-3 cr.
Total Required Credits: 10		

Program Competencies

- Proficient at using Microsoft Word to create, edit, format, manage files, and print basic letters, tables, memos, and reports.
- Demonstrated proficiency in using merged form letters, envelopes, mailing labels, outlines, styles, and templates.

- Knowledge of human relations including customer service skills, work ethics, team building, office organization and supervision, job application, interviewing techniques, resumes, and professional attire.
- Minimum of 90 hours work experience in business and office environment.

Business Technology-Front Office Assistant (CA)

Front office assistants are all-around office workers who perform many clerical duties which are important for the smooth operation of an office. They may file records; tabulate and post data in record books; prepare and mail receipts, invoices, and similar items; operate calculators, copiers, and computers; receive customers; and perform other customer service. Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Major Area Requirements

BTEC 087	APPLIED OFFICE ENGLISH	3 cr.
or BTEC 107	BUSINESS ENGLISH	5 cr.
BTEC 101	BEGINNING KEYBOARDING (3 credits required)	1-3 cr.
or BTEC 190	REFRESHER KEYBOARDING (3 credits required)	1-3 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
or BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
or BTEC 116	APPLICATION ESSENTIALS: WORD	1 cr.
and BTEC 117	APPLICATION ESSENTIALS: EXCEL	1 cr.
and BTEC 118	APPLICATION ESSENTIALS: POWERPOINT	1 cr.
BUS 110	CUSTOMER SERVICE	3 cr.
MATHB065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.

Total Required Credits: 23-27

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Professionally employ appropriate interpersonal skills with sensitivity to ethnic and cultural differences in dealing with customers or fellow employees.
- Compose, produce, and edit business documents utilizing proper grammar, spelling, word usage, and sentence structure.
- Create and maintain accurate filing systems with paper and electronic records.
- Use computational skills to solve business problems.

Chemistry

Chemistry is the study of the properties of materials and the changes that materials undergo. One of the joys of learning chemistry is seeing how chemical principles operate in all aspects of daily life, from everyday activities like lighting a match to more far-reaching matters like the development of drugs to cure cancer or reduce environmental hazards.

People who have degrees in chemistry hold a variety of positions in industry, government, and academia. Those who work in the chemical industry find positions as laboratory chemists, carrying out experiments to develop new

products (research and development), analyzing materials (quality control), or assisting customers in using products (sales and services). Analytical and control chemists usually have at least a bachelor's degree. Those with more experience or training may work as managers or company directors. They may also embark in the medical fields or the environmental sciences.

Clark College's Chemistry Department offers a multifaceted curriculum designed to meet a variety of needs -- from those of students pursuing a health-related Applied Science Degree to requirements for earning an Associate in Science in Chemistry, Biology, Engineering, or Physics.

Chemistry (AST1)

This is a suggested program for the first two years of major study in chemistry. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible. Courses in computer applications are recommended for all students. Additional courses are needed to satisfy graduation requirements for the Associate in Science.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (10 credits required)

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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or CMST& 220	PUBLIC SPEAKING	5 cr.
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or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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GERM& 121	GERMAN I	5 cr.
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Pre-Major Program Requirements

CHEM& 141	GENERAL CHEMISTRY I	4 cr.
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CHEM& 142	GENERAL CHEMISTRY II	4 cr.
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CHEM& 143	GENERAL CHEMISTRY III	4 cr.
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CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
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CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
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CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.
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PHYS& 221	ENGINEERING PHYSICS	5 cr.
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PHYS& 222	ENGINEERING PHYSICS	5 cr.
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PHYS& 223	ENGINEERING PHYSICS	5 cr.
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Science Electives

CHEM& 241	ORGANIC CHEMISTRY I	4 cr.
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CHEM& 242	ORGANIC CHEMISTRY II	4 cr.
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CHEM& 243	ORGANIC CHEMISTRY III	4 cr.
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CHEM& 251	ORGANIC CHEMISTRY LABORATORY I	1 cr.
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CHEM& 252	ORGANIC CHEMISTRY LABORATORY II	1 cr.
CHEM& 253	ORGANIC CHEMISTRY LABORATORY III	2 cr.

Other Electives-0-11 credits

ENGL& 102	ENGLISH COMPOSITION II	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
or ENGL& 235	TECHNICAL WRITING	5 cr.
MATH 111	COLLEGE ALGEBRA	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
MATH& 254	CALCULUS IV	5 cr.
GERM& 122	GERMAN II *	5 cr.
GERM& 123	GERMAN III **	5 cr.

or another language

Total Required Credits: 105

**CMST& 230 would count as a social science; otherwise, the third course needs to be a social science.*

*** Please check with the transfer institution regarding foreign language requirements.*

Chemistry Education (AST1)

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has these differences from the Major Related Program defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for checking specific major requirements of baccalaureate institutions in the year prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic Requirements

A. Basic Requirements

1. Communication Skills	5 cr.
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2. Quantitative/Symbolic Reasoning	5 cr.
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Intermediate algebra proficiency is required.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences	15 cr.
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15 credits of humanities and social science with at least 5 credits taken from each. Three different subjects required. No more than 5 credits of performance classes are allowed.

2. Science Pre-major Requirement

- Chemistry for science majors sequence (15 quarter credits)
 - Third quarter calculus or approved statistics course (5 quarter credits)
 - Biology for science majors or physics (calculus or non-calculus based) (15 quarter credits)
 - Additional requirements: 10 - 15 quarter credits in physics, geology, organic chemistry, biology, or mathematics, consisting of courses normally taken for science majors (not general education), preferably in a 2- or 3-quarter sequence
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Articulated Degree Requirements

A. Basic Requirements

1. English Composition 5 cr.

2. Calculus 10 cr.

Intermediate algebra proficiency is required.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences 15 cr.

5 quarter credits Introductory Speech

5 quarter credits General Psychology

C. Electives

1. Elective Courses

10-15 credits, depending on pathways above.

5 additional quarter credits of English composition.

Field Experience or Intro to Education recommended.

Clark College Equivalents

1. Communication Skills

ENGL& 101 ENGLISH COMPOSITION I 5 cr.

2. Quantitative/Symbolic Reasoning Requirement

MATH& 151 CALCULUS I 5 cr.

MATH& 152 CALCULUS II 5 cr.

1. Humanities/Fine Arts/English and Social Sciences

CMST& 220 PUBLIC SPEAKING 5 cr.

PSYC& 100 GENERAL PSYCHOLOGY 5 cr.

2. Science Pre-major Requirement

CHEM& 141 GENERAL CHEMISTRY I 4 cr.

CHEM& 142 GENERAL CHEMISTRY II 4 cr.

CHEM& 143 GENERAL CHEMISTRY III 4 cr.

CHEM& 151 GENERAL CHEMISTRY LABORATORY I 1 cr.

CHEM& 152 GENERAL CHEMISTRY LABORATORY II 1 cr.

CHEM& 153 GENERAL CHEMISTRY LABORATORY III 2 cr.

CHEM& 241 ORGANIC CHEMISTRY I 4 cr.

CHEM& 242 ORGANIC CHEMISTRY II 4 cr.

CHEM& 243 ORGANIC CHEMISTRY III 4 cr.

CHEM& 251 ORGANIC CHEMISTRY LABORATORY I 1 cr.

CHEM& 252 ORGANIC CHEMISTRY LABORATORY II 1 cr.

CHEM& 253 ORGANIC CHEMISTRY LABORATORY III 2 cr.

PHYS& 221 ENGINEERING PHYSICS 5 cr.

PHYS& 222 ENGINEERING PHYSICS 5 cr.

PHYS& 223 ENGINEERING PHYSICS 5 cr.

MATH& 153 CALCULUS III 5 cr.

or MATH 203	DESCRIPTIVE STATISTICS	3 cr.
and MATH 204	INFERENCE STATISTICS	3 cr.
C. Electives		
1. Elective Courses		
ENGL& 102	ENGLISH COMPOSITION II Required	5 cr.
EDUC& 201	INTRODUCTION TO EDUCATION Recommended	3 cr.
and EDUC 210	INTRODUCTORY FIELD EXPERIENCE Recommended	3 cr.

Notes

A. Basic Requirements

1. Quantitative/Symbolic Reasoning Requirement

Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

C. Electives

1. Elective Courses

A maximum of five (5) quarter credits of "gray area" courses will be accepted in the remaining credits category.

Communication Studies (Area of Study)

Working with people requires excellent verbal communication skills. Communication skills are some of the most important skills employers look for in college students preparing for the workplace, regardless of major or degree. Clark College offers courses in interpersonal, small group, and public speaking, as well as studies in mass communication, cross-cultural, and persuasion theory.

Effective communication is vital for success in most careers. Communication Studies courses enhance many degree programs and can help students develop skills that are beneficial for a variety of different fields. Students pursuing an associate in arts, an applied science degree, or a certificate of proficiency can benefit from Communication Studies courses, and many four-year degree programs require that students take at least one Communication Studies course.

Students pursuing a four-year degree in Communication Studies are strongly advised to consult a Communication Studies faculty member and an advisor from their transfer institution for assistance in planning their degree program. Competitive Speaking and Debate Team. Students who enjoy public speaking will find a prestigious home on the Clark College Competitive Speaking and Debate Team. The team has a long history of success, having won state, regional, and national championships. The team's notoriety extends around the globe, as team members have traveled to Italy, Spain, Czech Republic, and Great Britain to compete.

Students are encouraged to join the team to improve public speaking and critical thinking abilities, as well to as increase confidence and poise. For more information, contact the speech and debate director at 360-992-2285. Career Opportunities Students often ask, "What can I do with a communication degree?" Choosing the best educational path to a satisfying job and successful career can be difficult for a student. In a national survey of 1,000 human resource managers, oral communication skills are identified as valuable for both obtaining information and successful job performance. Fortune 500 executives indicate that college students need better communication skills, as well as the ability to work in teams and with people from diverse backgrounds. A degree in communication is useful for the following careers:

Administrative Services
Advertising
College Professor
Community Affairs
Conflict Resolution Specialist
Consulting
Customer Service
Government
Health Communication
Hotel Management
Human Development
International Relations
Lobbyist
Marketing
Marriage Counselor
Mediation
Negotiator
Police Officer
Politics
Public Relations
Radio & Television Broadcasting
Social Services
Communication Studies Courses

Many Clark students earn their Associate in Arts degree at Clark, transfer to a four-year institution with a junior standing and go on to earn their bachelor's degree in communication. Communication Studies department courses typically transfer to four-year institutions. However, students should contact their transfer institution to clarify each course's transferability.

Computer Aided Design & Drafting Technology

Drafting and design activities are central to eventual creation of physical parts and structures. Designs, communicated through drawings which have been drafted and detailed, give rise to mechanical parts and assemblies; architectural building structures; bridges, roads and highways; and a seemingly infinite array of consumer products. Almost every company involved with design and/or manufacturing has one or more design/drafting positions, and those companies use computer aided drafting & design (CADD) software applications as their primary design and drafting tool.

Clark College offers CADD Certificate of Proficiency programs in three areas: architectural, civil, and mechanical. Each of these programs is structured to prepared the student for entry-level work as a CADD technician. CADD Technology department personnel strive to take your personal goals into account, and will work with you to customize your degree requirements if warranted. This program is a professional-technical program and we try to provide the best real-world environment we can. Our teaching and open lab facilities boast fine equipment and each type of CADD software we teach is kept up to its current educational version. The program requires a co-op, or internship, for graduation. This experience -- driven by you, the student -- can be vital in gaining successful employment. After gaining experience, many people are successful in setting up their own contract design/drafting businesses. Other find that greater challenges are available in engineering or architecture, and go on to pursue further education in those fields. Some see CADD work as a means to support themselves as they continue that education.

General Preparation

Since many of the program courses are computer-based, students should be comfortable using a computer before entering any of these certificate programs. If interested, contact a CADD department faculty advisor to help you in your career and course-scheduling decisions. Placement testing is required to determine if mathematical and reading levels are adequate for the required courses, or if remedial coursework must be first completed. Interested high school students should prepare themselves by taking mathematics (algebra and geometry), physics, and drafting in particular.

Architectural Computer-Aided Drafting & Design (CP)

General Education Requirements

Communication Skills (3 credits required)

ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
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Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.
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Human Relations (3 credits required)

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
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HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.
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Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
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CADD 102	CADD CAREERS	1 cr.
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CADD 110	BASIC SKETCHUP	4 cr.
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CADD 140	BASIC AUTOCAD (same as ENGR 140, formerly ENGR 114)	4 cr.
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CADD 141	ARCHITECTURAL DRAFTING 1 W/AUTOCAD	4 cr.
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CADD 145	AUTOCAD ARCHITECTURE	4 cr.
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CADD 170	BASIC REVIT	4 cr.
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CADD 199	COOPERATIVE WORK EXPERIENCE (formerly ADT)	1-5 cr.
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CADD 207	PRESENTATION GRAPHICS	4 cr.
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CADD 210	ARCHITECTURAL DRAFTING 2	3 cr.
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CADD 214	AUTOCAD CUSTOMIZATION	3 cr.
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ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
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Total Required Credits: 52

Program Outcomes

- Create and manipulate architectural drawings and models in a multitude of CADD applications (core CADD skills).
- Fully annotate and print architectural drawings (core drafting skills).
- Demonstrate aspects of elementary design skills.
- Discuss and communicate aspects of various industries and businesses that typically use CADD applications.
- Demonstrate aspects of employability for an entry-level CADD-related position.
- Demonstrate aspects of professionalism as appropriate for an entry-level CADD-related position.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.

- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Civil Computer-Aided Drafting & Design (CP)

General Education Requirements

Communication Skills (3 credits required)

ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
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Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.
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Human Relations (3 credits required)

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
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HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.
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Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
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CADD 102	CADD CAREERS	1 cr.
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CADD 130	BASIC MICROSTATION	4 cr.
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CADD 140	BASIC AUTOCAD (same as ENGR 140, formerly ENGR 114)	4 cr.
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CADD 143	CIVIL DRAFTING 1 WITH AUTOCAD	4 cr.
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CADD 170	BASIC REVIT	4 cr.
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CADD 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
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CADD 207	PRESENTATION GRAPHICS	4 cr.
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CADD 214	AUTOCAD CUSTOMIZATION	3 cr.
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CADD 230	CIVIL DRAFTING 2	3 cr.
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ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
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SURV 100	INTRODUCTION TO GPS	2 cr.
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SURV 102	FUNDAMENTALS OF SURVEY (increase from 2-3 credits in 2009)	2 cr.
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Total Required Credits: 53

Program Outcomes

- Create and manipulate civil drawings and models in a multitude of CADD applications (core CADD skills).
- Fully annotate and print civil drawings (core drafting skills).
- Demonstrate aspects of elementary design skills.
- Discuss and communicate aspects of various industries and businesses that typically use CADD applications.
- Demonstrate aspects of employability for an entry-level CADD-related position.
- Demonstrate aspects of professionalism as appropriate for an entry-level CADD-related position.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.

- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Mechanical Computer-Aided Drafting & Design (CP)

General Education Requirement

Communication Skills (3 credits required)

ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
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Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.
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Human Relations (3 credits required)

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
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HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.
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Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
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CADD 102	CADD CAREERS	1 cr.
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CADD 140	BASIC AUTOCAD (same as ENGR 140, formerly ENGR 114)	4 cr.
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CADD 144	MECHANICAL DRAFTING 1 WITH AUTOCAD	4 cr.
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CADD 150	BASIC SOLIDWORKS (same as ENGR 150)	4 cr.
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CADD 154	MECHANICAL DRAFTING 1 WITH SOLIDWORKS	4 cr.
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CADD 155	INTERMEDIATE SOLIDWORKS - TOP DOWN DESIGN	4 cr.
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CADD 160	INTRODUCTION TO CAM	2 cr.
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CADD 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
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CADD 207	PRESENTATION GRAPHICS	4 cr.
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CADD 240	MECHANICAL DRAFTING 2	3 cr.
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ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
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ENGR 115	GEOMETRIC DIMENSIONING AND TOLERANCING	2 cr.
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Total Required Credits: 53

Program Outcomes

- Create and manipulate mechanical drawings and models in a multitude of CADD applications (core CADD skills).
- Fully annotate and print mechanical drawings (core drafting skills).
- Demonstrate aspects of elementary design skills.
- Discuss and communicate aspects of various industries and businesses that typically use CADD applications.
- Demonstrate aspects of employability for an entry-level CADD-related position.
- Demonstrate aspects of professionalism as appropriate for an entry-level CADD-related position.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.

- **Computational Skills:** Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Computer and Electrical Pre-Engineering

Electrical & Computer Engineers design, develop and analyze computer, electrical and electronic systems. These engineers work within multi-disciplinary teams and are employed in all industries. Their projects include power generation and distribution, communications systems, robotics, nano- and micro-electrical machinery, Biosystems, semiconductors, automation and robotics, networking, embedded systems and general computer system.

Computer and Electrical Pre-Engineering (AST2)

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has this difference from the Major Related Program defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic Requirements

A. Basic Requirements

1. Communication Skills	5 cr.
2. Mathematics Two courses at or above introductory calculus level. Third-quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an Engineering faculty advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.	10 cr.
3. Physics Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.	15 cr.
4. Chemistry with Laboratory	5 cr.
5. Required Major Courses	
B. Distribution Requirements	
1. Humanities	15 cr.

C. Electives

1. Elective Courses

The remaining quarter credits should be planned with the help of an Engineering faculty advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards, as approved by the Engineering faculty advisor.

Articulated Degree Requirements

A. Basic Requirements

1. English Composition

5 cr.

2. Mathematics

Calculus I, II, III - 15 credits

Differential Equations - 5 credits

Linear Algebra - 5 credits

3. Physics

Engineering Physics 1, 2, 3 + labs - 15 to 18 credits

4. Chemistry with Laboratory

General Chemistry I + labs - 5 credits

5. Required Major Courses

Electrical Circuits - 4-5 credits

Computer Programming - 4-5 credits

B. Distribution Requirements

1. Humanities/Fine Arts/English and Social Sciences

Minimum 15 quarter credits:

Minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science for a total of 15 credits.

C. Electives

1. Math. Science & Engr. Electives

20-25 cr.

Select 5 electives as appropriate for intended major and intended baccalaureate institution:

- A second course in Computer Programming - object oriented - 4-5 credits
 - Innovation in Design
 - Calculus IV (Advanced or Multi-variable Calculus)
 - Technical Writing
 - Statics
 - Dynamics
 - Thermodynamics
 - Digital Logic
 - Biology for Science Majors I + labs
 - General Chemistry II + lab
 - Applied Numerical Methods
 - Microprocessors
-

Clark College Equivalents

A. Basic Requirements

1. Communication Skills

ENGL& 101

ENGLISH COMPOSITION I

5 cr.

2. Mathematics

MATH& 151

CALCULUS I

5 cr.

MATH& 152	CALCULUS II	5 cr.
MATH& 153	CALCULUS III	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
3. Physics		
PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.
4. Chemistry with Laboratory		
CHEM& 141	GENERAL CHEMISTRY I	4 cr.
CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
5. Required Major Courses		
ENGR& 204	ELECTRICAL CIRCUITS	5 cr.
CSE 121	INTRODUCTION TO C	5 cr.
B. Distribution Requirements		
1. Humanities/Fine Arts/English & Social Sciences		
A course in Economics is recommended (ECON& 201 or 202).		
PHIL& 106 is strongly recommended as the Humanities course.		
C. Electives		
1. Required at Clark		
MATH& 254 (5 cr.) - Calculus IV		
Other electives as advised dependent on transfer institution.		

Notes

A. Basic Requirements

2. Mathematics

Clark requires concurrent enrollment or completion in MATH& 254 when taking MATH221. MATH103 and MATH111 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met via COMPASS.

3. Physics

Clark requires concurrent enrollment in PHYS094, 095, and 096.

B. Distribution Requirements

1. Humanities

Courses taken must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GER's/GUR's) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

Total Required Credits: 95-104

Computer Graphics Technology

The Computer Graphics Technology (CGT) program at Clark College provides hands-on learning with technologies used to create visual graphics, develop integrated media, and produce design solutions. Students taking our courses have an interest in computer graphics, multimedia, web design or graphic design. Our students' needs range from wanting specific software training, to acquiring a set of skills, to pursuing a certificate or degree.

CGT offers Career and Technical Education programs designed to prepare students for employment in various creative and technical disciplines. Our curriculum consists of two specialized certificate programs in Web Design or Graphic Design. These certificates can lead to one of our comprehensive AAT degrees in Web and Graphic Design

or Web Design & Development. Students may also be interested in the ART Department's Associate in Fine Arts (AFA) transfer degree in Graphic Design.

Students are encouraged to meet with a CGT program advisor to discuss options, help plan your course schedule, tour the facilities, and talk with current students. Students must complete all Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award. Refer to the Degree & Certificate Requirement Section of the Clark College catalog to identify the courses needed to satisfy the General Education Requirements.

Web Design and Development (AAT)

The Web Design & Development AAT Degree prepares students for professional practice in the field of web design. The program builds a first-year foundation of aesthetic and technical skills in web design and integrated media. The second year provides further study in web technologies, site development and functionality. Essential skills are developed through practical hands-on experience, real client project work, a focus on professional skills and building a portfolio of work. Graduates can seek employment as freelance web designers, web production coordinators, content managers or publishers, web entrepreneurs, or entry-level web designers.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
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Human Relations (5 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

Fine Art Foundations

ART 110	CREATIVITY AND CONCEPT	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 118	TIME-BASED ART AND DESIGN	3 cr.

Computer Graphics Technology

CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	3 cr.
CGT 104	WEB MULTIMEDIA CONTENT I	4 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.
CGT 204	WEB MULTIMEDIA CONTENT II	4 cr.

Graphic Design

ART 172	GRAPHIC DESIGN EXPLORATION	4 cr.
ART 215	PORTFOLIO DEVELOPMENT	3 cr.

Web Design

CTEC 122	HTML FUNDAMENTALS	3 cr.
CGT 105	USER EXPERIENCE DESIGN	3 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.

CGT 205	WEB DESIGN I	4 cr.
CGT 206	WEB DESIGN II	4 cr.
CGT 207	EMERGING WEB TECHNOLOGIES	3 cr.
CGT 214	PROFESSIONAL PRACTICES	3 cr.
or CGT 240	CAPSTONE PRACTICUM	3 cr.
Web Development		
CTEC 120	BEGINNING PROGRAMMING	2 cr.
CTEC 126	INTRODUCTION TO WEB SCRIPTING	5 cr.
CTEC 127	INTRODUCTION TO PHP	4 cr.
CTEC 227	ADVANCED PHP	4 cr.
CTEC 185	DATABASE WEB TECHNOLOGIES	5 cr.

Total Required Credits: 97-99

Program Outcomes

- Apply fine art theory and design purposeful projects relevant to audience needs.
- Synthesize multiple media assets with appropriate interactions and functions.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage web design projects.
- Use written, verbal and visual means to effectively present and communicate web design projects.
- Demonstrate work and business ethics in web design practice.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Web & Graphic Design (AAT)

The Web & Graphic Design AAT degree prepares students for professional practice in the field of visual communications. The program builds a first-year foundation of aesthetic and technical skills and progresses into advanced study of web and graphic design practices. Students learn to effectively communicate ideas and information in a variety of traditional, digital, print, web and other media formats. Essential skills are developed through practical hands-on experience, real client project work, a focus on professional skills and building a portfolio of work. Graduates can seek employment as freelance designers, production designers or coordinators, content managers or publishers, marketing communications specialists, or entry-level web or graphic designers.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

Human Relations (5 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements**Fine Art Foundations**

ART 110	CREATIVITY AND CONCEPT	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 118	TIME-BASED ART AND DESIGN	3 cr.

Computer Graphics Technology

CGT 100	GRAPHIC DESIGN TECHNOLOGY I	4 cr.
CGT 104	WEB MULTIMEDIA CONTENT I	4 cr.
CGT 200	GRAPHIC DESIGN TECHNOLOGY II	4 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.
CGT 204	WEB MULTIMEDIA CONTENT II	4 cr.

Graphic Design

ART 172	GRAPHIC DESIGN EXPLORATION	4 cr.
ART 173	GRAPHIC DESIGN STUDIO I	4 cr.
ART 174	TYPOGRAPHY	4 cr.
ART 215	PORTFOLIO DEVELOPMENT	3 cr.
ART 271	PUBLICATION DESIGN	4 cr.
ART 273	GRAPHIC DESIGN STUDIO II	4 cr.
ART 274	GRAPHIC DESIGN STUDIO III	4 cr.

Web Design

CTEC 122	HTML FUNDAMENTALS	3 cr.
CGT 105	USER EXPERIENCE DESIGN	3 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.
CGT 205	WEB DESIGN I	4 cr.
CGT 206	WEB DESIGN II	4 cr.
CGT 207	EMERGING WEB TECHNOLOGIES	3 cr.
CGT 214	PROFESSIONAL PRACTICES	3 cr.
or CGT 240	CAPSTONE PRACTICUM	3 cr.

Total Required Credits: 95

Program Outcomes

- Apply fine art theory and design purposeful projects relevant to audience needs.
- Synthesize multiple media assets with appropriate interactions and functions.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage web design projects.
- Use written, verbal and visual means to effectively present and communicate web design projects.

- Demonstrate work and business ethics in web design practice.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Web Design (CP)

The Web Design Certificate prepares students to create web graphics, integrate media, and design websites. The program provides a foundation of aesthetic and technical skills through the study of visual design concepts, multi-media technologies and web design practices. Essential skills are developed through practical hands-on experience, real client project work, a focus on professional skills and building a portfolio of work. Graduates can seek employment as a freelance web designer, production artist, web content designer, e-marketing assistant, or other web-related production and support roles within a business.

General Education Requirements

Communication Skills (3 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

CTEC 122	HTML FUNDAMENTALS	3 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

Fine Art Foundations

ART 110	CREATIVITY AND CONCEPT	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 118	TIME-BASED ART AND DESIGN	3 cr.

Computer Graphics Technology

CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	3 cr.
CGT 104	WEB MULTIMEDIA CONTENT I	4 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.
CGT 204	WEB MULTIMEDIA CONTENT II	4 cr.

Graphic Design

ART 172	GRAPHIC DESIGN EXPLORATION	4 cr.
ART 215	PORTFOLIO DEVELOPMENT	3 cr.

Web Design

CGT 105	USER EXPERIENCE DESIGN	3 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.

CGT 205	WEB DESIGN I	4 cr.
CGT 206	WEB DESIGN II	4 cr.
CGT 214	PROFESSIONAL PRACTICES	3 cr.
or CGT 240	CAPSTONE PRACTICUM	3 cr.

Total Required Credits: 66

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Apply fine art theory and design purposeful projects relevant to audience needs.
- Synthesize multiple media assets with appropriate interactions and functions.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage web design projects.
- Use written, verbal and visual means to effectively present and communicate web design projects.
- Demonstrate work and business ethics in web design practice.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Graphic Design (CP)

The Graphic Design Certificate prepares students to conceptualize ideas, create original artwork, and develop visual design solutions. The program provides a foundation of aesthetic and technical skills through the study of fine art principles, the design process and graphic design practices. Essential skills are developed through practical hands-on experience, contextual project work, a focus on professional skills and building a portfolio of work. Graduates can seek employment as freelance graphic designers, production artists, digital graphics specialists, marketing assistants, or other graphic art production and support roles within a business.

General Education Requirements

Communication Skills (3 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

CTEC 122	HTML FUNDAMENTALS	3 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

Fine Art Foundations

ART 103	DRAWING I	3 cr.
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ART 110	CREATIVITY AND CONCEPT	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 145	DIGITAL PHOTOGRAPHY I	3 cr.
Computer Graphics Technology		
CGT 100	GRAPHIC DESIGN TECHNOLOGY I	4 cr.
CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	3 cr.
CGT 200	GRAPHIC DESIGN TECHNOLOGY II	4 cr.
Graphic Design		
ART 172	GRAPHIC DESIGN EXPLORATION	4 cr.
ART 173	GRAPHIC DESIGN STUDIO I	4 cr.
ART 174	TYPOGRAPHY	4 cr.
ART 208	DIGITAL ILLUSTRATION	4 cr.
ART 215	PORTFOLIO DEVELOPMENT	3 cr.
ART 273	GRAPHIC DESIGN STUDIO II	4 cr.
CGT 214	PROFESSIONAL PRACTICES	3 cr.
or CGT 240	CAPSTONE PRACTICUM	3 cr.

Total Required Credits: 67

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Recognize and apply foundational art theory.
- Place design projects and issues in context of society and culture.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage graphic design projects.
- Use written, verbal and visual means to effectively present and communicate graphic design projects.
- Demonstrate work and business ethics in graphic design practice.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Computer Science

Computers are an integral part of most human activities and professions. Therefore, a wide variety of career opportunities are available to the computer science professionals who are commonly referred to as computer scientists.

Computer scientists are responsible for analyzing requirements, planning, developing high-level design, writing, and testing the program that delivers the expected results. Computer scientists may be involved with support and maintenance of the solutions.

Computer scientists are employed in all industries such as manufacturing, finance, service, retail, gaming, and others. Typically, computer scientists work with other professionals in order to develop solutions that meet business and customer requirements.

Computer science specialties include:

- Artificial intelligence
- Computer vision
- Database
- Graphics and animation
- Embedded systems
- Networking
- Operating Systems
- Program languages and compilers
- Robotics

Computer Science (AST2)

This is a suggested program for the first two years of a four-year Computer Science program. These lower-division course requirements will vary depending on the math and English placement at Clark College, and on the requirements of the four-year institution to which you transfer. It is critical that you work with a Computer Science and Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer. Additional courses are needed to satisfy graduation requirements for the Associate in Science degree.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (10 credits required)

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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Health & Physical Education (3 credits required)

Humanities & Social Science (15 credits required)

Pre-Major Program Requirements- 25 credits

MATH& 153	CALCULUS III	5 cr.
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PHYS& 221	ENGINEERING PHYSICS	5 cr.
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PHYS& 222	ENGINEERING PHYSICS	5 cr.
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PHYS& 223	ENGINEERING PHYSICS	5 cr.
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Additional Science		5 cr.
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Computer Science Electives

CSE 120	INTRO TO ELECTRICAL/COMPUTING	5 cr.
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CSE 121	INTRODUCTION TO C	5 cr.
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CS& 131	COMPUTER SCIENCE I C++	5 cr.
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CS& 141	COMPUTER SCIENCE I JAVA	5 cr.
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CSE 222	INTRODUCTION TO DATA STRUCTURES	5 cr.
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CSE 223	DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMING	5 cr.
CSE 224	PROGRAMMING TOOLS	5 cr.
ENGR& 204	ELECTRICAL CIRCUITS	5 cr.
ENGR 250	DIGITAL LOGIC DESIGN	5 cr.
ENGR 270	DIGITAL SYSTEMS AND MICROPROCESSORS	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
Total Required Credits: 90		

Requirements vary by school and program. See an Engineering faculty advisor regarding proper selection.

Computer Technology

The Computer Technology (CTEC) department at Clark College offers training in a variety of foundational and content-specific topics relating to general computer literacy and fluency, computer operating systems interactions, programming, databases, web technology, and networking. Our course offerings serve a variety of missions: to enhance and expand an individual student's skill set, to serve as a prerequisite or requirement for another area of study, or to be a component course in one of the programs offered by this department.

CTEC currently offers the Computer Support Specialist program with degree and certificate options to provide students with skills for employment as computer technicians, help desk workers and other technical support roles. The department also offers a certificate in Web Programming and an AAT degree in Web Design and Development, collaboratively delivered with the Computer Graphics Technology (CGT) department.

Student considering options in computer-related careers should meet with a program advisor to consider which CTEC courses or programs may benefit them in their training and career exploration. CTEC course offerings can help provide a foundational understanding and set of skills in computer technology that will help them make informed decisions on career choices in other Clark College computer-related programs offered by Networking Technology (DNET), Computer Graphics Technology (CGT), and Business Technology (BTEC), as well as on transfer opportunities in Computer Science and Information Technology.

For CTEC degrees and certificates, students must complete all major area requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award. Students should refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements for our program offerings.

Computer Support Specialist (CP)

This program is designed for students desiring careers as computer support technicians and specialists who offer services and support for a company or organization. Support specialists install, configure and maintain hardware and software as well as diagnose, troubleshoot, and resolve computer-related problems. The Computer Support Specialist Certificate of Proficiency at Clark College features training in foundational skills, based on computer industry certifications; an emphasis on customer service; and work experience in a computer help desk setting.

Students interested in the Computer Support Specialist program should obtain advising before entering the program.

General Education Requirements

Communication Skills (3 credits required)

ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
or ENGL& 101	ENGLISH COMPOSITION I	5 cr.

Computational Skills (3 credits required)

MATH 090	ELEMENTARY ALGEBRA	5 cr.
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Human Relations (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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Introductory Courses

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
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CTEC 100	INTRODUCTION TO COMPUTING	3 cr.
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CTEC 101	COMPUTING ESSENTIALS	2 cr.
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CTEC 102	INTRODUCTION TO WINDOWS	3 cr.
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CTEC 103	INTRODUCTION TO MAC/OS	3 cr.
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CTEC 104	PC SUPPORT CUSTOMER SERVICE SKILLS	3 cr.
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CTEC 110	COMMAND LINE ESSENTIALS FOR WINDOWS AND UNIX	3 cr.
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CTEC 120	BEGINNING PROGRAMMING	2 cr.
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Major Area Requirements

CTEC 150	INTRO TO LOCAL AREA NETWORKS	3 cr.
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CTEC 200	PC HELP DESK WORK EXPERIENCE	1-5 cr.
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DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.
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DNET 232	COMPTIA A+ COMPUTER SUPPORT TECHNICIAN	6 cr.
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Total Required Credits: 54-57

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Demonstrate foundational understanding of concepts, skills and issues relating to underlying technology and current industry standards involving computer technology.
- Install, configure, and maintain hardware and software to bring the system to an appropriate operational level for the end user.
- Diagnose, troubleshoot and repair customer hardware, software, and networking issues.
- Identify, access, and evaluate resources, and respond appropriately and professionally with written and verbal communications to colleagues and customers.
- Maintain a professional and supportive role with colleagues and customers in regard to their computer technology needs.
- Analyze the ethical and legal issues surrounding access to and use of technology.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Computer Support Specialist (AAS)

This program is designed for students desiring careers as computer support technicians and specialists who provide services and support for a company or organization. Support specialists install, configure and maintain hardware and software as well as diagnose, troubleshoot, and resolve computer-related problems. The Computer Support Specialist Associate of Applied Science at Clark College features training in foundational skills based on computer industry certifications. It also features an emphasis on support for a variety of platforms and network settings. Students in the program will gain practical experience in help desk and other service environments.

Students interested in the Computer Support Specialist program should obtain advising before entering the program.

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 090	ELEMENTARY ALGEBRA	5 cr.
or MATH 095	INTERMEDIATE ALGEBRA	5 cr.

Human Relations (3 credits required)

Humanities (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.

Social Sciences (3 credits required)

3 cr.

Natural Sciences (3 credits required)

Introductory Courses

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
CTEC 100	INTRODUCTION TO COMPUTING	3 cr.
CTEC 101	COMPUTING ESSENTIALS	2 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.
CTEC 103	INTRODUCTION TO MAC/OS	3 cr.
CTEC 104	PC SUPPORT CUSTOMER SERVICE SKILLS	3 cr.
CTEC 110	COMMAND LINE ESSENTIALS FOR WINDOWS AND UNIX	3 cr.
CTEC 150	INTRO TO LOCAL AREA NETWORKS	3 cr.

Major Area Requirements

CTEC 115	INTERNET RESEARCH AND LIVING ONLINE	2 cr.
CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 141	UNIX SYSTEM ADMINISTRATION	5 cr.
CTEC 181	INTRODUCTION TO DATABASE DESIGN USING ACCESS	5 cr.
CTEC 200	PC HELP DESK WORK EXPERIENCE (3-5 credits required)	1-5 cr.

CTEC 295	CAPSTONE EXPERIENCE	3 cr.
DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.
DNET 232	COMPTIA A+ COMPUTER SUPPORT TECHNICIAN	6 cr.

Total Required Credits: 90-92

Program Outcomes

- Demonstrate broad-based understanding of concepts, skills and issues relating to underlying technology and current industry standards involving computer and information technology.
- Install, configure, and maintain hardware and software to bring the system to an optimal operational level for the end user.
- Diagnose, troubleshoot and repair customer hardware, software, and networking issues in a variety of environments.
- Identify, access, and evaluate resources, and respond appropriately and professionally with written and verbal communications to colleagues and customers.
- Maintain a professional and supportive role with colleagues and customers in regard to their computer technology needs.
- Analyze the ethical and legal issues surrounding access to and use of technology.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Web Programming (CA)

This certificate is designed to provide foundational training in key technologies related to web programming and web development.

All students interested in this program option should obtain advising prior to pursuing this certificate.

Major Area Requirements

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 122	HTML FUNDAMENTALS	3 cr.
CTEC 126	INTRODUCTION TO WEB SCRIPTING	5 cr.
CTEC 127	INTRODUCTION TO PHP	4 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 181	INTRODUCTION TO DATABASE DESIGN USING ACCESS	5 cr.

CTEC 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-5 cr.
or CTEC 290	SPECIAL PROJECTS (5 credits required)	1-5 cr.
CTEC 227	ADVANCED PHP	4 cr.
CTEC 241	SCRIPTING WITH PERL	5 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

Total Required Credits: 43

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Demonstrate a working knowledge of recognized client/server-related technologies related to World Wide Web interactions.
- Exercise foundational skills relating to interactions and tools in the Linux operating system.
- Design and execute back-end scripting solutions to support web server activities.
- Create executable server-side resources using PHP and relational databases.
- Create and deploy client-side resources using HTML/CSS, JavaScript and other related tools.
- Develop and deliver web content in a team or group setting.

Web Design & Development (AAT)

This degree is delivered in collaboration with the Computer Graphics Technology (CGT) program.

All interested students should obtain advising prior to pursuit of this degree.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
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Human Relations (5 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

Fine Art Foundations

ART 110	CREATIVITY AND CONCEPT	3 cr.
ART 115	TWO-DIMENSIONAL DESIGN	4 cr.
ART 118	TIME-BASED ART AND DESIGN	3 cr.

Computer Graphics Technology

CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	3 cr.
CGT 104	WEB MULTIMEDIA CONTENT I	4 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.
CGT 204	WEB MULTIMEDIA CONTENT II	4 cr.

Graphic Design		
ART 172	GRAPHIC DESIGN EXPLORATION	4 cr.
ART 215	PORTFOLIO DEVELOPMENT	3 cr.
Web Design		
CTEC 122	HTML FUNDAMENTALS	3 cr.
CGT 105	USER EXPERIENCE DESIGN	3 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.
CGT 205	WEB DESIGN I	4 cr.
CGT 206	WEB DESIGN II	4 cr.
CGT 207	EMERGING WEB TECHNOLOGIES	3 cr.
CGT 214	PROFESSIONAL PRACTICES	3 cr.
or CGT 240	CAPSTONE PRACTICUM	3 cr.
Web Development		
CTEC 120	BEGINNING PROGRAMMING	2 cr.
CTEC 126	INTRODUCTION TO WEB SCRIPTING	5 cr.
CTEC 127	INTRODUCTION TO PHP	4 cr.
CTEC 227	ADVANCED PHP	4 cr.
CTEC 185	DATABASE WEB TECHNOLOGIES	5 cr.

Total Required Credits: 97-99

Program Outcomes

- Apply fine art theory and design purposeful projects relevant to audience needs.
- Synthesize multiple media assets with appropriate interactions and functions.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage web design projects.
- Use written, verbal and visual means to effectively present and communicate web design projects.
- Demonstrate work and business ethics in web design practice.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Construction Technology

The Construction Technology program provides entry-level training for those who are interested in the construction industry. Instruction is a blend of theory and lab which includes both technical and professionalism skills necessary to apply for entry-level positions in the industry.

During the first year, the students will study units in safety, applied mathematics, tool usage, codes, cost estimation, and the development of building plans. In addition, the students will apply these skills during a variety of hands-on

projects. The projects are a toolbox, scale model house, and several utility sheds. Besides an emphasis in residential carpentry, the students will explore several of the trades such as electrical, sheet metal, and tile. During the first year, students will also have several opportunities to work on the student house project and other large structures.

If selected to return for the second year, the students will continue to develop leadership and professionalism skills as they build a residential home in the community. Additional skills such as advanced applied mathematics, cost estimation, employment relationships, and sound work habits are emphasized.

Upon completion of this program, students will have entry-level skills necessary to get and maintain a career in the construction industry. The program has articulation agreements with several of the local apprenticeship programs for advanced placement dependent on final grades and instructor recommendation.

Graduates may find employment with contractors, suppliers, retail outlets, or building maintenance companies.

All CNST courses are taught at the Clark County Skills Center (12200 NE 28th Street, Vancouver) and follow the Skills Center's calendar for class days, hours, and breaks (except CNST 106 & 108). There is a lab fee and students are required to purchase a tool set and have valid health insurance.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Construction Technology (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

MATH 085	INDUSTRIAL MATHEMATICS	5 cr.
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Human Relations (3 credits required)

Major Area Requirements

CNST 106	BLUEPRINT READING	3 cr.
CNST 108	JOB ESTIMATING AND SCHEDULING	3 cr.
CNST 111	CONSTRUCTION TECHNOLOGY I	6 cr.
CNST 112	CONSTRUCTION TECHNOLOGY I LAB	6 cr.
CNST 121	CONSTRUCTION TECHNOLOGY II	6 cr.
CNST 122	CONSTRUCTION TECHNOLOGY II LAB	6 cr.
CNST 131	CONSTRUCTION TECHNOLOGY III	6 cr.
CNST 132	CONSTRUCTION TECHNOLOGY III LAB	6 cr.
CNST 211	CONSTRUCTION TECHNOLOGY IV	6 cr.
CNST 212	CONSTRUCTION TECHNOLOGY IV LAB	6 cr.
CNST 221	CONSTRUCTION TECHNOLOGY V	6 cr.
CNST 222	CONSTRUCTION TECHNOLOGY V LAB	6 cr.
CNST 231	CONSTRUCTION TECHNOLOGY VI	6 cr.
CNST 232	CONSTRUCTION TECHNOLOGY VI LAB	6 cr.

Total Required Credits: 89

Program Outcomes

- Understand and apply construction vocabulary.
- Locate, interpret, and apply information.
- Perform essential construction operations and functions.
- Know and value professional construction-related opportunities.
- Practice and value the importance of professionalism through teamwork, quality of craftsmanship, communication skills, and a positive work ethic.
- Understand, define, practice, and value workplace safety.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Construction Technology (AAS)

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 085	INDUSTRIAL MATHEMATICS	5 cr.
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Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Major Area Requirements

CNST 106	BLUEPRINT READING	3 cr.
CNST 108	JOB ESTIMATING AND SCHEDULING	3 cr.
CNST 111	CONSTRUCTION TECHNOLOGY I	6 cr.
CNST 112	CONSTRUCTION TECHNOLOGY I LAB	6 cr.
CNST 121	CONSTRUCTION TECHNOLOGY II	6 cr.
CNST 122	CONSTRUCTION TECHNOLOGY II LAB	6 cr.
CNST 131	CONSTRUCTION TECHNOLOGY III	6 cr.
CNST 132	CONSTRUCTION TECHNOLOGY III LAB	6 cr.
CNST 211	CONSTRUCTION TECHNOLOGY IV	6 cr.
CNST 212	CONSTRUCTION TECHNOLOGY IV LAB	6 cr.
CNST 221	CONSTRUCTION TECHNOLOGY V	6 cr.
CNST 222	CONSTRUCTION TECHNOLOGY V LAB	6 cr.

CNST 231	CONSTRUCTION TECHNOLOGY VI	6 cr.
CNST 232	CONSTRUCTION TECHNOLOGY VI LAB	6 cr.
		Total Required Credits: 104

Program Outcomes

- Understand and apply construction vocabulary.
- Locate, interpret, and apply information.
- Perform essential construction operations and functions.
- Know and value professional construction-related opportunities.
- Practice and value the importance of professionalism through teamwork, quality of craftsmanship, communication skills, and a positive work ethic.
- Understand, define, practice, and value workplace safety.

General Education Outcomes

- **Communications:** Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- **Human Relations:** Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- **Computational Skills:** Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- **Health and PE:** Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- **Humanities:** Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- **Social Science:** Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- **Science:** Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Construction Technology (AAT)

General Education Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Major Area Requirements

CNST 106	BLUEPRINT READING	3 cr.
CNST 108	JOB ESTIMATING AND SCHEDULING	3 cr.
CNST 111	CONSTRUCTION TECHNOLOGY I	6 cr.
CNST 112	CONSTRUCTION TECHNOLOGY I LAB	6 cr.
CNST 121	CONSTRUCTION TECHNOLOGY II	6 cr.
CNST 122	CONSTRUCTION TECHNOLOGY II LAB	6 cr.
CNST 131	CONSTRUCTION TECHNOLOGY III	6 cr.
CNST 132	CONSTRUCTION TECHNOLOGY III LAB	6 cr.

CNST 211	CONSTRUCTION TECHNOLOGY IV	6 cr.
CNST 212	CONSTRUCTION TECHNOLOGY IV LAB	6 cr.
CNST 221	CONSTRUCTION TECHNOLOGY V	6 cr.
CNST 222	CONSTRUCTION TECHNOLOGY V LAB	6 cr.
CNST 231	CONSTRUCTION TECHNOLOGY VI	6 cr.
CNST 232	CONSTRUCTION TECHNOLOGY VI LAB	6 cr.
Total Required Credits: 93		

Program Outcomes

- Understand and apply construction vocabulary.
- Locate, interpret, and apply information.
- Perform essential construction operations and functions.
- Know and value professional construction-related opportunities.
- Practice and value the importance of professionalism through teamwork, quality of craftsmanship, communication skills, and a positive work ethic.
- Understand, define, practice, and value workplace safety.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Culinary Arts - Baking/Bakery Management

Clark College's curriculum in cooking, retail baking, bakery management, and restaurant management has been awarded best-in-the-state honors by the National Restaurant Association. Students may prepare for jobs in all phases of the hospitality industry including restaurants, country clubs, wholesale and retail bakeries, and hotels.

The curriculum's success can also be measured by tracing the careers of its graduates. A number have been employed by leading hotel chains. Others work as executive chef, sous chef, bakery managers, and bakers with popular local restaurants and bakeries. Some have opened their own businesses.

Students must complete all Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Baking/Bakery Management

The Baking/Bakery Management program offers baking and cake decorating courses leading to jobs in the baking industry, or jobs as bakers in the hospitality industry. Instruction consists of theory and practical experience in the baking laboratory, which is operated as a simulated retail bakery. A large variety of breads, cakes, pastries, and cookies are produced and sold in the bakery store to campus students, staff, faculty members, and guests.

Baking (CERT)

Please consult the Culinary Arts Department for more information about short-term certificates in Baking.

Program Outcomes

- Apply basic baking procedures in a professional baking atmosphere.

Baking (CA)

A Certificate of Achievement is awarded to students who complete any combination of two Certificates of Completion. Please consult the Culinary Arts Department for more information.

Program Outcomes

- Apply processes of baking and basic baking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to baking and bakery management.
- Operate commercial bakery equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.

Baking (CP)

Students must complete three of the four quarters listed below:

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

First Quarter

BAK 111	BAKING THEORY	5 cr.
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BAK 110	BAKING LAB	10 cr.
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Second Quarter

BAK 113	BAKING THEORY	5 cr.
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BAK 112	BAKING LAB	10 cr.
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Third Quarter

BAK 115	BAKING THEORY	5 cr.
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BAK 114	BAKING LAB	10 cr.
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Fourth Quarter

BAK 117	BAKING THEORY	5 cr.
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BAK 116	BAKING LAB	10 cr.
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Total Required Credits: 54

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Apply processes of baking and basic baking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to baking and bakery management.
- Operate commercial bakery equipment using standard safety and sanitation procedures.

- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Bakery Management (CP)

In addition to completing all Major Area Requirement courses for the Certificate of Proficiency-Baking, students must also complete three of the four quarters listed below:

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

Fifth Quarter

BAK 211	BAKERY MANAGEMENT THEORY	5 cr.
BAK 210	BAKERY MANAGEMENT LAB	10 cr.

Sixth Quarter

BAK 213	BAKERY MANAGEMENT THEORY	5 cr.
BAK 212	BAKERY MANAGEMENT LAB	10 cr.

Seventh Quarter

BAK 215	BAKERY MANAGEMENT THEORY	5 cr.
BAK 214	BAKERY MANAGEMENT LAB	10 cr.

Eighth Quarter

BAK 217	BAKERY MANAGEMENT THEORY	5 cr.
BAK 216	BAKERY MANAGEMENT LAB	10 cr.

Total Required Credits: 99

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Apply processes of baking and basic baking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to baking and bakery management.
- Operate commercial bakery equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.
- Demonstrate supervisory skills in a professional baking atmosphere by creating menus and food requisitions, while applying basic baking principles.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.

- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Bakery Management (AAS)

In addition to completing all Major Area Requirement courses for the Certificate of Proficiency-Baking AND the Certificate of Proficiency-Bakery Management, students must also complete the following General Education Requirements:

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Suggested Extra Courses

BAK 120	BEGINNING CAKE DECORATING	3 cr.
BAK 122	INTERMEDIATE CAKE DECORATING	3 cr.
BAK 124	ADVANCED CAKE DECORATING	3 cr.
BAK 126	PASTRY ART	3 cr.

Total Required Credits: 114

Program Outcomes

- Apply processes of baking and basic baking skills in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to baking and bakery management.
- Operate commercial bakery equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.
- Demonstrate supervisory and critical-thinking skills in a professional baking atmosphere by creating menus and food requisitions while applying basic baking principles.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.

- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Baking/Bakery Management (AAT)

In addition to completing all Major Area Requirement courses for the Certificate of Proficiency-Baking AND the Certificate of Proficiency-Bakery Management, students must also complete the following related instructional requirements:

Related Instructional Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Total Required Credits: 105

Program Outcomes

- Apply processes of baking and basic baking skills in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to baking and bakery management.
- Operate commercial bakery equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.
- Demonstrate supervisory and critical-thinking skills in a professional baking atmosphere by creating menus and food requisitions while applying basic baking principles.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Culinary Arts - Cooking/Restaurant Management

Clark College's curriculum in cooking, retail baking, bakery management, and restaurant management has been awarded best-in-the-state honors by the National Restaurant Association. Students may prepare for jobs in all phases of the hospitality industry including restaurants, country clubs, wholesale and retail bakeries, and hotels.

The curriculum's success can also be measured by tracing the careers of its graduates. A number have been employed by leading hotel chains. Others work as executive chefs, sous chefs, bakery managers, and bakers with popular local restaurants and bakeries. Some have opened their own businesses.

Students must complete all Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Cooking/Restaurant Management

Commercial preparation and service of food is the world's largest industry, employing many skilled men and women. The principles and practices of restaurant cuisine are studied in the day-to-day operation of the Clark College kitchen. The program teaches the skills of preparing meats, salads, desserts, vegetables, sauces, all the standard recipes, and also a great variety of gourmet dishes. Students get practice in buying supplies, cutting meats, utilizing all materials economically, and maintaining and controlling inventory accounts, writing menus, security controls, supervision of employees, and every phase of cost controls. Advanced placement is awarded to students with prior culinary arts schooling.

Cooking (CERT)

Certificates of Completion

Please consult the Culinary Arts Department for more information about short-term certificates in Cooking.

Program Outcomes

- Apply basic cooking procedures in a professional culinary atmosphere.

Cooking (CA)

Certificates of Achievement

A Certificate of Achievement will be awarded to students who complete any combination of two Certificates of Completion. Please consult the Culinary Arts Department for more information.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Apply processes of culinary arts and basic cooking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to culinary arts.
- Operate commercial culinary equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.

Cooking - Option I (CP)

Students must complete three of the four quarters listed below plus an additional nine credits of General Education Requirements.

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

First Quarter

FOOD 102	FOOD SERVICE	4 cr.
FOOD 111	COOKING THEORY	5 cr.

FOOD 112	FOOD PRODUCTION	4 cr.
FOOD 120	KITCHEN SET-UP	2 cr.
Second Quarter		
FOOD 103	FOOD SERVICE	4 cr.
FOOD 113	COOKING THEORY	5 cr.
FOOD 114	FOOD PRODUCTION	4 cr.
FOOD 121	KITCHEN SET-UP	2 cr.
Third Quarter		
FOOD 104	FOOD SERVICE	4 cr.
FOOD 115	COOKING THEORY	5 cr.
FOOD 116	FOOD PRODUCTION	4 cr.
FOOD 122	KITCHEN SET-UP	2 cr.
Fourth Quarter		
FOOD 105	FOOD SERVICE	4 cr.
FOOD 117	COOKING THEORY	5 cr.
FOOD 118	FOOD PRODUCTION	4 cr.
FOOD 123	KITCHEN SET-UP	2 cr.

Extra Courses

These are not required courses.

FOOD 134	SOUPS AND SAUCES	3 cr.
FOOD 140	WINE APPRECIATION	3 cr.
FOOD 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
FOOD 235	BEGINNING MEAT CUTTING	3 cr.
FOOD 236	INTERMEDIATE MEAT CUTTING	3 cr.
FOOD 237	ADVANCED MEAT CUTTING	3 cr.
FOOD 290	SPECIAL PROJECTS	1-12 cr.

Total Required Credits: 63

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Apply processes of culinary arts and basic cooking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to culinary arts.
- Operate commercial culinary equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Restaurant Management - Option II (CP)

In addition to completing all Major Area Requirement courses for the Certificate of Proficiency-Cooking (Option I), students must also complete three of the four quarters listed below:

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

Fifth Quarter

FOOD 223	MANAGEMENT THEORY	5 cr.
FOOD 240	RESTAURANT MANAGEMENT	8 cr.
FOOD 250	ADVANCED KITCHEN SET-UP	2 cr.

Sixth Quarter

FOOD 225	MANAGEMENT THEORY	5 cr.
FOOD 241	RESTAURANT MANAGEMENT	8 cr.
FOOD 251	ADVANCED KITCHEN SET-UP	2 cr.

Seventh Quarter

FOOD 227	MANAGEMENT THEORY	5 cr.
FOOD 242	RESTAURANT MANAGEMENT	8 cr.
FOOD 252	ADVANCED KITCHEN SET-UP	2 cr.

Eighth Quarter

FOOD 229	MANAGEMENT THEORY	5 cr.
FOOD 243	RESTAURANT MANAGEMENT	8 cr.
FOOD 253	ADVANCED KITCHEN SET-UP	2 cr.

Total Required Credits: 108

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Apply processes of culinary arts and basic cooking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to culinary arts and restaurant management.
- Operate commercial culinary equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.
- Demonstrate supervisory skills in a professional culinary/restaurant atmosphere by creating menus and food requisitions while applying basic cooking principles.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Cooking/Restaurant Management (AAS)

In addition to completing all Major Area Requirement courses for the Certificate of Proficiency-Cooking (Option I) AND the Certificate of Proficiency-Restaurant Management (Option II), students must also complete the following General Education Requirements:

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Total Required Credits: 120-123

Program Outcomes

- Apply processes of culinary arts and basic cooking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to culinary arts and restaurant management.
- Operate commercial culinary equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.
- Demonstrate supervisory and critical-thinking skills in a professional culinary/restaurant atmosphere by creating menus and food requisitions while applying basic cooking principles.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Cooking/Restaurant Management (AAT)

In addition to completing all Major Area Requirement courses for the Certificate of Proficiency-Cooking (Option I) AND the Certificate of Proficiency-Restaurant Management (Option II), students must also complete the following General Education Requirements:

General Education Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Total Required Credits: 105

Program Outcomes

- Apply processes of culinary arts and basic cooking in daily routine.
- Follow recipes correctly to perform daily tasks.
- Perform accurate mathematical operations appropriate to culinary arts and restaurant management.
- Operate commercial culinary equipment using standard safety and sanitation procedures.
- Demonstrate effective verbal and written communication skills with customers, co-workers, and supervisors.
- Demonstrate supervisory and critical-thinking skills in a professional culinary/restaurant atmosphere by creating menus and food requisitions while applying basic cooking principles.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Dining Room Service Program (CERT)

The Dining Room Service program is designed so that students can enter in any quarter. With the completion of FOOD 131, 132, and 133, students will have the necessary entry-level job skills to work as a waiter or waitress.

Major Area Requirements

FOOD 131	DINING ROOM THEORY	4 cr.
FOOD 132	DINING ROOM PRODUCTION	5 cr.
FOOD 133	DINING ROOM SERVICE	5 cr.

Total Required Credits: 14

Program Outcomes

- Demonstrate entry-level skills to work as a waiter or waitress.
- Demonstrate effective verbal and written communication skills with customers, co-workers and supervisors.
- Demonstrate accurate cashiering skills.

Dental Hygiene

A career as a hygienist offers a wide range of opportunities. Services provided by dental hygienists include patient assessment procedures, exposing and developing radiographs, removing calculus and biofilm from all surfaces of the teeth, managing and treating periodontally involved conditions, placing and applying dental restorative materials, applying preventive materials to the teeth, teaching patients appropriate oral hygiene to maintain oral health, nutrition counseling, taking impressions, performing documentation and office management activities, and developing and implementing community oral health programs.

The Dental Hygiene program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. Graduates receive an Associate in Applied Science degree and may complete requirements for the Associate in Arts degree, which will transfer directly to four-year universities within the state of Washington. Those completing the program qualify to take national, regional, and state board examinations for licensure and are prepared to enter clinical practice. The program includes all responsibilities allowed by Washington state law.

Clinical experience takes place in Clark College's dental hygiene clinic under the supervision of licensed dentists and dental hygienists. Other clinical or community sites are used for limited educational experiences.

Application Process

The Dental Hygiene program is a seven-quarter clinical program with preliminary requirements that must be taken before program entry. Admission to the program is outlined in two stages: preliminary requirements and final program admission.

Preliminary Requirements

To meet preliminary entrance requirements, candidates must:

- Complete the Clark College Application for Admission and Statement of Intent forms. Return to the Clark College Welcome Center with the non-refundable program application fees (amount subject to change). For the current fee amounts, please visit the Dental Hygiene website at www.clark.edu/dentalhygiene.
- Application deadline for Clark College's Dental Hygiene program is January 8th of every year for the upcoming fall quarter. Students **MUST** have no more than 10 credits left of preliminary coursework to complete by the end of winter quarter to qualify for selection into the following fall class.
- Complete ENGL& 101 with a 2.0 or higher grade.
- Earn a cumulative GPA of 2.75 or higher and an applicable science GPA of 2.25 or higher.
- All science courses must be seven (7) years current upon program entry.
- Send all official college transcripts to the Credential Evaluations Office for complete transcript evaluation, and continue to send updated transcripts quarterly as courses are completed.
- Complete courses listed under Preliminary Required Courses with a 2.0 or above. (Students can have a maximum of 10 credits of preliminary required coursework to complete after winter quarter to be eligible for selection into the following fall's Dental Hygiene class.)
- The most recent educational experience will be used to meet admission criteria.

Program Progression

In order to progress from one course or quarter to the next after beginning the Dental Hygiene program, student must achieve a grade of 2.0 or higher in all required courses and maintain a cumulative GPA of 2.0 or higher.

General Information

Selection criteria are subject to change. For complete updated information, please refer to the application booklet, available online at www.clark.edu/dentalhygiene

Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dss. Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory,

or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

Dental Hygiene (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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ENGL& 102	ENGLISH COMPOSITION II	5 cr.
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PE Activity (1 credit required)

Health course waived

Computational Skills (3 credits required)

Placement of MATH 090 or higher will satisfy this requirement.

Humanities (3 credits required)

Human Relations (3 credits required)

Social Sciences (3 credits required)

PSYC& 100	GENERAL PSYCHOLOGY *	5 cr.
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Natural Sciences (3 credits required)

NUTR 103	GENERAL NUTRITION	3 cr.
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**General Psychology also fulfills the Human Relations Requirement*

Preliminary Program Requirements

BIOL& 251	HUMAN A & P I	4 cr.
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and BIOL& 252	HUMAN A & P II	4 cr.
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and BIOL& 253	HUMAN A & P III	4 cr.
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BIOL& 260	MICROBIOLOGY	5 cr.
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CHEM& 121	INTRO TO CHEMISTRY: PRE-HEALTH	5 cr.
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CHEM& 131	INTRO TO ORGANIC/BIOCHEM	5 cr.
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Final Program Admission

Upon completion of the preliminary entrance requirements, all qualified applicants will be invited to and must participate in a mandatory student orientation with the Dental Hygiene Department. During orientation, the HESI A2 Admission test will be administered. Successful candidates will be notified in writing of final acceptance into the program. Payment of a non-refundable deposit will reserve a position for fall quarter entry. During the school year, the deposit will be refunded to all currently enrolled dental hygiene students.

Because of the rigor and intensity of the curriculum, applicants must complete all pre-dental hygiene requirements prior to entry.

Completion of the pre-dental hygiene requirements does not guarantee entrance into the program. The Dental Hygiene Department has limited enrollment and Clark College reserves the right to determine admission status.

Persons not selected for entry are welcome to reapply the following year but are encouraged to seek advising before doing so and must formally reapply and comply with the admissions process for that year.

Major Area Requirements

DH 101	DENTAL ANATOMY	3 cr.
DH 102	HEAD AND NECK ANATOMY	3 cr.
DH 103	ORAL HEALTH EDUCATION	2 cr.
DH 104	INTRODUCTION TO DENTAL MATERIALS/ASSISTING	3 cr.
DH 111	CLINICAL DENTAL HYGIENE TECHNIQUES I	6 cr.
DH 112	CLINICAL DENTAL HYGIENE TECHNIQUES II	5 cr.
DH 113	CLINICAL DENTAL HYGIENE TECHNIQUES III	5 cr.
DH 114	CLINICAL DENTAL HYGIENE TECHNIQUES IV	4 cr.
DH 122	ORAL RADIOLOGY I	3 cr.
DH 123	ORAL RADIOLOGY II	1 cr.
DH 124	ORAL RADIOLOGY III	2 cr.
DH 134	RESTORATIVE DENTISTRY I	2 cr.
DH 141	ORAL MEDICINE	2 cr.
DH 143	GENERAL AND ORAL PATHOLOGY	3 cr.
DH 152	ETHICS AND THE PROFESSION	1 cr.
DH 154	SPECIAL NEEDS POPULATIONS I	1 cr.
DH 163	LOCAL ANESTHESIA & PAIN CONTROL	4 cr.
DH 171	PERIODONTICS I	3 cr.
DH 172	CARIOLOGY	2 cr.
DH 174	NITROUS OXIDE SEDATION	1 cr.
DH 181	PHARMACOLOGY I	1 cr.
DH 182	PHARMACOLOGY II	1 cr.
DH 183	PHARMACOLOGY III	1 cr.
DH 201	DENTAL PUBLIC HEALTH I	2 cr.
DH 202	DENTAL PUBLIC HEALTH II	2 cr.
DH 203	DENTAL PUBLIC HEALTH III	1 cr.
DH 211	CLINICAL DENTAL HYGIENE TECHNIQUES V	9 cr.
DH 212	CLINICAL DENTAL HYGIENE TECHNIQUES VI	9 cr.
DH 213	CLINICAL DENTAL HYGIENE TECHNIQUES VII	10 cr.
DH 231	RESTORATIVE DENTISTRY II	5 cr.
DH 232	RESTORATIVE DENTISTRY III	4 cr.
DH 233	RESTORATIVE DENTISTRY IV	3 cr.
DH 251	SPECIAL NEEDS POPULATIONS II	1 cr.
DH 252	SPECIAL NEEDS POPULATIONS III	1 cr.
DH 253	SPECIAL NEEDS POPULATIONS IV	1 cr.
DH 263	ETHICS AND PRACTICE MANAGEMENT	1 cr.
DH 271	PERIODONTICS II	2 cr.
DH 272	PERIODONTICS III	2 cr.

Total Required Credits: 161

Program Outcomes

- Communicate effectively and professionally, using verbal, non-verbal, and written language with patients, colleagues, the public, diverse populations, and other healthcare providers.
- Analyze professional behaviors and make appropriate decisions guided by ethical principles and core values.
- Assess, diagnose, plan, implement, and evaluate the provision of optimal, evidence-based, and patient-centered dental hygiene care.
- Successfully complete all initial licensing exams.
- Demonstrate the skills necessary to stay current in the field.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

General - Dental Hygiene (AA)

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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ENGL& 102	ENGLISH COMPOSITION II	5 cr.
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Quantitative Skills (5 credits required)

Physical Education Activity (1 credit required)

Health course waived

Oral Communications (5 credits required)

Humanities (15 credits required)

Social Sciences (15 credits required)

Note: From at least three different departments; no more than 10 credits in one department.

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
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Natural Sciences (15 credits required)

BIOL& 251	HUMAN A & P I	4 cr.
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and BIOL& 252	HUMAN A & P II	4 cr.
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and BIOL& 253	HUMAN A & P III	4 cr.
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NUTR 103	GENERAL NUTRITION	3 cr.
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Preliminary Program Requirements

BIOL& 260	MICROBIOLOGY	5 cr.
CHEM& 121	INTRO TO CHEMISTRY: PRE-HEALTH	5 cr.
CHEM& 131	INTRO TO ORGANIC/BIOCHEM	5 cr.

Major Area Requirements

DH 101	DENTAL ANATOMY	3 cr.
DH 102	HEAD AND NECK ANATOMY	3 cr.
DH 103	ORAL HEALTH EDUCATION	2 cr.
DH 104	INTRODUCTION TO DENTAL MATERIALS/ASSISTING	3 cr.
DH 111	CLINICAL DENTAL HYGIENE TECHNIQUES I	6 cr.
DH 112	CLINICAL DENTAL HYGIENE TECHNIQUES II	5 cr.
DH 113	CLINICAL DENTAL HYGIENE TECHNIQUES III	5 cr.
DH 114	CLINICAL DENTAL HYGIENE TECHNIQUES IV	4 cr.
DH 122	ORAL RADIOLOGY I	3 cr.
DH 123	ORAL RADIOLOGY II	1 cr.
DH 134	RESTORATIVE DENTISTRY I	2 cr.
DH 141	ORAL MEDICINE	2 cr.
DH 143	GENERAL AND ORAL PATHOLOGY	3 cr.
DH 152	ETHICS AND THE PROFESSION	1 cr.
DH 154	SPECIAL NEEDS POPULATIONS I	1 cr.
DH 163	LOCAL ANESTHESIA & PAIN CONTROL	4 cr.
DH 172	CARIOLOGY	2 cr.
DH 171	PERIODONTICS I	3 cr.
DH 174	NITROUS OXIDE SEDATION	1 cr.
DH 201	DENTAL PUBLIC HEALTH I	2 cr.
DH 202	DENTAL PUBLIC HEALTH II	2 cr.
DH 203	DENTAL PUBLIC HEALTH III	1 cr.
DH 211	CLINICAL DENTAL HYGIENE TECHNIQUES V	9 cr.
DH 212	CLINICAL DENTAL HYGIENE TECHNIQUES VI	9 cr.
DH 213	CLINICAL DENTAL HYGIENE TECHNIQUES VII	10 cr.
DH 231	RESTORATIVE DENTISTRY II	5 cr.
DH 232	RESTORATIVE DENTISTRY III	4 cr.
DH 233	RESTORATIVE DENTISTRY IV	3 cr.
DH 251	SPECIAL NEEDS POPULATIONS II	1 cr.
DH 252	SPECIAL NEEDS POPULATIONS III	1 cr.
DH 253	SPECIAL NEEDS POPULATIONS IV	1 cr.
DH 263	ETHICS AND PRACTICE MANAGEMENT	1 cr.

DH 271	PERIODONTICS II	2 cr.
DH 272	PERIODONTICS III	2 cr.
		Total Required Credits: 184

Program Outcomes

- Communicate effectively and professionally, using verbal, non-verbal, and written language with patients, colleagues, the public, diverse populations, and other healthcare providers.
- Analyze professional behaviors and make appropriate decisions guided by ethical principles and core values.
- Assess, diagnose, plan, implement, and evaluate the provision of optimal, evidence-based, and patient-centered dental hygiene care.
- Successfully complete all initial licensing exams.
- Demonstrate the skills necessary to stay current in the field.

Diesel Technology

The diesel technician must be able to work on a great variety of equipment and their component parts. These include brake systems, drive trains, electrical and electronic circuits, hydraulic systems, and diesel engines. Diesel power is used in the transportation industry in light, medium, and heavy-duty trucks

and in industrial applications such as heavy equipment, agriculture, marine propulsion, power generation, and locomotives.

Because of the widespread use of this type of power, diesel technicians can work in a shop or outdoors as a field service technician. This program is designed to prepare students for entry-level positions into the diesel technician trade. Diesel program instruction includes both classroom theory and extensive hands-on experience in the shop where the student encounters real day-to-day problems.

The diesel evening program includes courses for Caterpillar, Cummins, and Detroit engines; electronic controls; and industrial hydraulics for technicians who wish to further their knowledge and skills. Any course in the program can be made available to area employers and their employees.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Diesel Technology (CP)

General Education Requirements

Communication Skills (3 credits required)

ENGL 097	WRITING FUNDAMENTALS	3 cr.
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Computational Skills (3 credits required)

MATH 085	INDUSTRIAL MATHEMATICS	5 cr.
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or MATH 030	PRE-ALGEBRA	5 cr.
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Human Relations (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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Major Area Requirements

DIES 111	DIESEL FUNDAMENTALS	5 cr.
DIES 112	DIESEL PROCEDURES	10 cr.
DIES 113	DIESEL ENGINES/FUEL SYSTEMS	5 cr.
DIES 114	DIESEL PROCEDURES	10 cr.
DIES 115	DRIVE TRAINS	5 cr.
DIES 116	DIESEL PROCEDURES	10 cr.
DIES 120	BASIC ELECTRICAL	3 cr.
DIES 121	ELECTRONIC ENGINE MANAGEMENT SYSTEMS	3 cr.
DIES 122	ELECTRONIC VEHICLE CONTROL SYSTEMS	3 cr.
DIES 221	ELECTRICAL/ELECTRONIC SYSTEMS	5 cr.
DIES 222	DIESEL PROCEDURES	6 cr.
DIES 223	HYDRAULIC SYSTEMS	5 cr.
DIES 224	DIESEL PROCEDURES	10 cr.
DIES 225	BRAKES, STEERING, AND SUSPENSION	5 cr.
DIES 226	DIESEL PROCEDURES	10 cr.

Suggested Extra Courses for Preparation into the Trade

BUS 110	CUSTOMER SERVICE	3 cr.
DIES 093	DETROIT DIESEL ELECTRONIC CONTROLS	3 cr.
DIES 096	CUMMINS ENGINES	3 cr.
DIES 099	CAT ENGINES	3 cr.
DIES 135	INDUSTRIAL HYDRAULICS	3 cr.
IFA 031	INDUSTRIAL FIRST AID	1 cr.

Total Required Credits: 108

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Evaluate and use technical information from a variety of resources.
- Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Comply with personal and environmental safety practices that relate to the diesel power industry.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Diesel Technology (AAS)

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 085	INDUSTRIAL MATHEMATICS	5 cr.
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or MATH 030	PRE-ALGEBRA	5 cr.
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Human Relations (3 credits required)

CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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or CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Note: ENGL 097 does not meet the Communication Skills General Education Requirement for the AAS degree.

Major Area Requirements

DIES 111	DIESEL FUNDAMENTALS	5 cr.
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DIES 112	DIESEL PROCEDURES	10 cr.
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DIES 113	DIESEL ENGINES/FUEL SYSTEMS	5 cr.
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DIES 114	DIESEL PROCEDURES	10 cr.
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DIES 115	DRIVE TRAINS	5 cr.
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DIES 116	DIESEL PROCEDURES	10 cr.
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DIES 120	BASIC ELECTRICAL	3 cr.
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DIES 121	ELECTRONIC ENGINE MANAGEMENT SYSTEMS	3 cr.
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DIES 122	ELECTRONIC VEHICLE CONTROL SYSTEMS	3 cr.
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DIES 221	ELECTRICAL/ELECTRONIC SYSTEMS	5 cr.
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DIES 222	DIESEL PROCEDURES	6 cr.
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DIES 223	HYDRAULIC SYSTEMS	5 cr.
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DIES 224	DIESEL PROCEDURES	10 cr.
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DIES 225	BRAKES, STEERING, AND SUSPENSION	5 cr.
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DIES 226	DIESEL PROCEDURES	10 cr.
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Total Required Credits: 120-122

Program Outcomes

- Evaluate and use technical information from a variety of resources.
- Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Comply with personal and environmental safety practices that relate to the diesel power industry.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Diesel Technology (AAT)

General Education Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Major Area Requirements

DIES 111	DIESEL FUNDAMENTALS	5 cr.
DIES 112	DIESEL PROCEDURES	10 cr.
DIES 113	DIESEL ENGINES/FUEL SYSTEMS	5 cr.
DIES 114	DIESEL PROCEDURES	10 cr.
DIES 115	DRIVE TRAINS	5 cr.
DIES 116	DIESEL PROCEDURES	10 cr.
DIES 120	BASIC ELECTRICAL	3 cr.
DIES 121	ELECTRONIC ENGINE MANAGEMENT SYSTEMS	3 cr.
DIES 122	ELECTRONIC VEHICLE CONTROL SYSTEMS	3 cr.
DIES 221	ELECTRICAL/ELECTRONIC SYSTEMS	5 cr.
DIES 222	DIESEL PROCEDURES	6 cr.
DIES 223	HYDRAULIC SYSTEMS	5 cr.
DIES 224	DIESEL PROCEDURES	10 cr.
DIES 225	BRAKES, STEERING, AND SUSPENSION	5 cr.
DIES 226	DIESEL PROCEDURES	10 cr.

Additional Recommended Courses (for preparation into trade)

BUS 110	CUSTOMER SERVICE	3 cr.
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DIES 093	DETROIT DIESEL ELECTRONIC CONTROLS	3 cr.
DIES 096	CUMMINS ENGINES	3 cr.
DIES 099	CAT ENGINES	3 cr.
DIES 135	INDUSTRIAL HYDRAULICS	3 cr.
IFA 031	INDUSTRIAL FIRST AID	1 cr.

Total Required Credits: 110

Program Outcomes

- Evaluate and use technical information from a variety of resources.
- Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Comply with personal and environmental safety practices that relate to the diesel power industry.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Drama (Area of Study)

The Clark College Drama program provides a rich cultural focus for the campus and surrounding community, blending theatre, music, dance, and art into entertaining and award-winning productions. The co-curricular program combines traditional classroom training with the opportunity for students to apply and test both performance and technical skills in staged productions before a paying audience.

A comprehensive curriculum teaches acting principles and techniques for both theatre and television, including scene study, characterization, and period styles of acting. Camera operations and directing skills are also studied.

The Children's Theatre classes focus on performance styles for young audiences, touring scenery techniques, and performance tour management.

Basic stagecraft design and construction, stage lighting and makeup courses provide behind-the-scenes knowledge to enhance acting performance and also skills for a career in the production side of the film and theatre industry. Students planning a career in acting or other phases of theatrical production can acquire foundation skills and experience in multiple settings while completing degree requirements. Theatre courses and performances also serve as excellent training for those planning careers in teaching or other fields that require public presentations.

Because course requirements vary at each institution, students interested in pursuing a four-year degree in Drama should work with advisors at Clark and their transfer institution to develop a course of study.

Drama courses typically transfer to four-year institutions. However, students should contact their transfer institution to clarify each course's transferability.

Early Childhood Education

Work in programs for young children is a challenging, absorbing, and personally rewarding career. In Clark College's Early Childhood Education program, students study child development and program organization, plan learning experiences for young children, and develop guidance skills in working with children.

The Early Childhood Education (ECE) department offers various certificates of achievement. As part of each certificate program, students are required to complete prescribed numbers of hours doing student teaching and/or observation in the Child and Family Studies program under the supervision of selected staff as well as in the community at large.

Programs are revised periodically to reflect changes in the specific career field. The following list of courses is an example of the coursework required for each program. Students planning to complete this program must meet with an advisor prior to registration for a current list of requirements.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Students preparing to transfer should make an early decision and contact the four-year school to which they will transfer. The Early Childhood Education Advisors can help in planning a schedule based on the four-year school's requirements. The department has made transfer agreements with several colleges to date.

Students must be able to pass a Criminal History screening to participate with the children in the ECE lab school. Participation in the ECE lab is a requirement for taking classes in ECE program. Students are also required to get a TB test or provide written proof that they have had one within the last year.

ECE-Foundations of Curriculum (CA)

Major Area Requirements

ECE 114	ENVIRONMENTS FOR CHILDREN	3 cr.
ECE 121	INTRODUCTION TO EARLY CHILDHOOD EDUCATION *	4 cr.
or ECE 131	ISSUES & TRENDS IN EARLY CHILDHOOD EDUCATION	3 cr.
ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.
ECE 133	REFLECTIVE PRACTICES IN EARLY LEARNING	3 cr.
ECE 135	PARTNERSHIPS WITH FAMILIES IN EARLY CARE & EDUC	3 cr.
ECE 137	CHILD DEVELOPMENT: PRENATAL THROUGH AGE EIGHT	5 cr.
ECE 209	LEARNING EXPERIENCES FOR YOUNG CHILDREN I	3 cr.
ECE 210	LEARNING EXPERIENCES FOR YOUNG CHILDREN I LAB	3 cr.
ECE 211	LEARNING EXPERIENCES FOR YOUNG CHILDREN II	3 cr.
ECE 212	LEARNING EXP FOR YOUNG CHILDREN II LAB	3 cr.
ECE 213	LEARNING EXPERIENCES FOR YOUNG CHILDREN III	3 cr.
ECE 214	LEARNING EXP FOR YOUNG CHILDREN III LAB	3 cr.
EDUC& 203	EXCEPTIONAL CHILD	3 cr.

Total Required Credits: 41-42

** The requirement for this class may be satisfied by taking ECE 131: Issues and Trends in ECE (Distance Education via WAOL) for 3 credits.*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Examine and demonstrate knowledge of positive guidance approaches using indirect and direct guidance strategies.
- Define and identify multiple approaches to curriculum development.

ECE-Family Child Care (CA)

Core Requirements

ECE 103	CHILD NUTRITION, HEALTH AND SAFETY	3 cr.
ECE 114	ENVIRONMENTS FOR CHILDREN	3 cr.
ECE 116	LITERATURE AND STORYTELLING FOR CHILDREN	3 cr.
ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.
ECE 137	CHILD DEVELOPMENT: PRENATAL THROUGH AGE EIGHT	5 cr.

Additional Requirements

Students must select two courses from area one (as paired) AND one course from area two:

1.		
ECE 136	PROGRAMS FOR INFANTS AND TODDLERS	4 cr.
and ECE 208	EARLY LANGUAGE FACILITATION	2 cr.
or ECE 112	CURRICULUM AND GUIDANCE FOR SCHOOL-AGERS	4 cr.
and ECE 138	CHILD DEVELOPMENT:SCHOOL AGE THROUGH ADOLESCENCE	5 cr.
2.		
ECE 135	PARTNERSHIPS WITH FAMILIES IN EARLY CARE & EDUC	3 cr.
or ECE 202	CHILD AND FAMILY	3 cr.

Total Required Credits: 26-29

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the [Gainful Employment Program Information page](#).

Program Outcomes

- Examine and demonstrate knowledge of positive guidance approaches using indirect and direct guidance strategies.
- Identify age-appropriate activities using knowledge of child development.

ECE-Infant Toddler (CA)

All classes are in the evening or online.

Major Area Requirements

ECE 114	ENVIRONMENTS FOR CHILDREN	3 cr.
ECE 133	REFLECTIVE PRACTICES IN EARLY LEARNING	3 cr.
ECE 135	PARTNERSHIPS WITH FAMILIES IN EARLY CARE & EDUC	3 cr.
ECE 136	PROGRAMS FOR INFANTS AND TODDLERS	4 cr.
ECE 137	CHILD DEVELOPMENT: PRENATAL THROUGH AGE EIGHT	5 cr.
ECE 208	EARLY LANGUAGE FACILITATION	2 cr.
EDUC& 203	EXCEPTIONAL CHILD	3 cr.

Total Required Credits: 23

Program Outcomes

- Examine and demonstrate knowledge of positive guidance approaches using indirect and direct guidance strategies.

ECE-School-Age (CA)

Major Area Requirements

ECE 112	CURRICULUM AND GUIDANCE FOR SCHOOL-AGERS	4 cr.
ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.
ECE 132	OBSERVATION, DOCUMENTATION AND RECORDING	3 cr.
ECE 133	REFLECTIVE PRACTICES IN EARLY LEARNING	3 cr.
ECE 135	PARTNERSHIPS WITH FAMILIES IN EARLY CARE & EDUC *	3 cr.
or ECE 202	CHILD AND FAMILY *	3 cr.
ECE 138	CHILD DEVELOPMENT:SCHOOL AGE THROUGH ADOLESCENCE	5 cr.
EDUC& 203	EXCEPTIONAL CHILD	3 cr.

Total Required Credits: 24

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Examine and demonstrate knowledge of positive guidance approaches using indirect and direct guidance strategies.
- Identify age-appropriate activities using knowledge of child development.

Early Childhood Education (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

ECE 103	CHILD NUTRITION, HEALTH AND SAFETY	3 cr.
ECE 114	ENVIRONMENTS FOR CHILDREN	3 cr.
ECE 121	INTRODUCTION TO EARLY CHILDHOOD EDUCATION *	4 cr.
ECE 123	EARLY CHILDHOOD PROGRAM REG & BEST PRACT (non-graded)	2 cr.
ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.
ECE 132	OBSERVATION, DOCUMENTATION AND RECORDING	3 cr.
ECE 133	REFLECTIVE PRACTICES IN EARLY LEARNING	3 cr.
ECE 135	PARTNERSHIPS WITH FAMILIES IN EARLY CARE & EDUC	3 cr.
ECE 138	CHILD DEVELOPMENT:SCHOOL AGE THROUGH ADOLESCENCE	5 cr.
ECE 208	EARLY LANGUAGE FACILITATION	2 cr.
ECE 209	LEARNING EXPERIENCES FOR YOUNG CHILDREN I	3 cr.

ECE 210	LEARNING EXPERIENCES FOR YOUNG CHILDREN I LAB	3 cr.
EDUC& 203	EXCEPTIONAL CHILD	3 cr.

Additional Major Area Requirements

Select a **minimum of 5-6 credits** from the following list (to make a total of 45 or more major area requirements):

ECE 102	SCIENCE AND MATHEMATICS FOR YOUNG CHILDREN	3 cr.
ECE 112	CURRICULUM AND GUIDANCE FOR SCHOOL-AGERS	4 cr.
ECE 116	LITERATURE AND STORYTELLING FOR CHILDREN	3 cr.
ECE 136	PROGRAMS FOR INFANTS AND TODDLERS	4 cr.
ECE 138	CHILD DEVELOPMENT:SCHOOL AGE THROUGH ADOLESCENCE	5 cr.
ECE 202	CHILD AND FAMILY	3 cr.
ECE 211	LEARNING EXPERIENCES FOR YOUNG CHILDREN II	3 cr.
and ECE 212	LEARNING EXP FOR YOUNG CHILDREN II LAB	3 cr.
MUSC 106	MUSIC IN EARLY CHILDHOOD EDUCATION	3 cr.
PSYC& 200	LIFESPAN PSYCHOLOGY **	5 cr.

Total Required Credits: 54-55

**The requirement for this class may be satisfied by taking ECE 131: Issues and Trends in ECE (Distance Education via WAOL) for 3 credits*

***Psychology 200 will fulfill the Human Relations requirement*

45 credits in ECE fulfills the State requirement for Program Director for Licensed Child Care Centers.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Examine and demonstrate knowledge of positive guidance approaches using indirect and direct guidance strategies.
- Define and identify multiple approaches to curriculum development.
- Demonstrate multiple methods of communication with families.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Early Childhood Education (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 030	PRE-ALGEBRA (or COMPASS Placement in MATH 090)	5 cr.
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Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)**Natural Sciences (3 credits required)**

ENVS 109	INTEGRATED ENVIRONMENTAL SCIENCE (recommended)	5 cr.
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Major Area Requirements

ECE 102	SCIENCE AND MATHEMATICS FOR YOUNG CHILDREN	3 cr.
ECE 103	CHILD NUTRITION, HEALTH AND SAFETY	3 cr.
ECE 105	INDIVIDUALIZED INSTRUCTION I	2 cr.
ECE 106	INDIVIDUALIZED INSTRUCTION II	2 cr.
ECE 114	ENVIRONMENTS FOR CHILDREN	3 cr.
ECE 116	LITERATURE AND STORYTELLING FOR CHILDREN	3 cr.
ECE 121	INTRODUCTION TO EARLY CHILDHOOD EDUCATION *	4 cr.
ECE 123	EARLY CHILDHOOD PROGRAM REG & BEST PRACT	2 cr.
ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.
ECE 132	OBSERVATION, DOCUMENTATION AND RECORDING	3 cr.
ECE 133	REFLECTIVE PRACTICES IN EARLY LEARNING	3 cr.
ECE 135	PARTNERSHIPS WITH FAMILIES IN EARLY CARE & EDUC	3 cr.
ECE 137	CHILD DEVELOPMENT: PRENATAL THROUGH AGE EIGHT	5 cr.
ECE 199	COOPERATIVE WORK EXPERIENCE **	1-5 cr.
ECE 202	CHILD AND FAMILY	3 cr.
ECE 208	EARLY LANGUAGE FACILITATION	2 cr.
ECE 209	LEARNING EXPERIENCES FOR YOUNG CHILDREN I	3 cr.
ECE 210	LEARNING EXPERIENCES FOR YOUNG CHILDREN I LAB	3 cr.
ECE 211	LEARNING EXPERIENCES FOR YOUNG CHILDREN II	3 cr.
ECE 212	LEARNING EXP FOR YOUNG CHILDREN II LAB	3 cr.
ECE 213	LEARNING EXPERIENCES FOR YOUNG CHILDREN III	3 cr.
ECE 214	LEARNING EXP FOR YOUNG CHILDREN III LAB	3 cr.
ECE 215	EARLY CHILDHOOD SEMINAR	2 cr.
EDUC& 203	EXCEPTIONAL CHILD	3 cr.

Additional Major Area Requirements

ECE 136	PROGRAMS FOR INFANTS AND TODDLERS	4 cr.
or ECE 138	CHILD DEVELOPMENT:SCHOOL AGE THROUGH ADOLESCENCE	5 cr.
and ECE 112	CURRICULUM AND GUIDANCE FOR SCHOOL-AGERS	4 cr.

Total Required Credits: 104-109

Concurrent enrollment required for ECE 199/ECE 215.

Concurrent enrollment required for ECE 209/ECE 210 Lab.

Concurrent enrollment required for ECE 211/ECE 212 Lab.

Concurrent enrollment required for ECE 213/ECE 214 Lab.

** The requirement for this class may be satisfied by taking ECE 131.*

*** ECE 199 must be taken for 5 credits.*

The course of study in Early Childhood Education conforms to the following:

- Guidelines for preparation of early childhood professionals; Washington state skill standards; and
- Early childhood education professional competencies.

Program Outcomes

- Implement and/or supervise age-appropriate curriculum in various domains of learning.
- Implement and/or supervise emergent curriculum in various domains of learning.
- Implement and/or supervise individualized curriculum based on a written observation.
- Implement and/or supervise the strategies for informing families of the multiple ways children are engaged with the curriculum.
- Implement and/or supervise the application of diversity when developing ECE curriculum.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Early Childhood Education - Transfer Degree (AAS-T) (AAS)

Students preparing to transfer should make an early decision and contact the four-year school to which they will transfer. The Early Childhood Education coordinator can help in planning a schedule based on the four-year school's requirements. The department has made transfer agreements with several colleges to date.

Students must be able to pass a Criminal History screening to participate with the children in the ECE lab school. Participation in the ECE lab is a requirement for taking classes in ECE program. Students are also required to get a TB test or provide written proof that they have had one within the last year.

General Education Requirements

Note: Some general education requirements may be met by the specific requirements of the program.

Communication Skills (10 credits required)		
ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.
Quantitative Skills (10 credits required)		
MATH 105	FINITE MATHEMATICS	5 cr.
MATH& 107	MATH IN SOCIETY	5 cr.
Humanities (10 credits required) (must be taken from two departments)		
CMST& 220	PUBLIC SPEAKING	5 cr.

Recommended

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
CMST 216	INTERCULTURAL COMMUNICATION	5 cr.
CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
MUSC 106	MUSIC IN EARLY CHILDHOOD EDUCATION	3 cr.
MUSC& 104	MUSIC APPRECIATION	3 cr.
SPAN& 121	SPANISH I	5 cr.
WS 101	INTRODUCTION TO WOMEN'S STUDIES	5 cr.
Social Sciences (10 credits required) (must be taken from two departments)		
PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.
<i>Recommended</i>		
SOC& 101	INTRO TO SOCIOLOGY	5 cr.
SOC 121	MARRIAGE AND FAMILY EXPERIENCES IN THE U.S.	3 cr.
SOC 131	RACE AND ETHNICITY IN THE U.S.	3 cr.
Natural Sciences (10 credits required) (5 credits must be a lab science)		
<i>Recommended</i>		
BIOL 164 and BIOL 165	HUMAN BIOLOGY HUMAN BIOLOGY LAB	4 cr. 1 cr.
PHSC 101	GENERAL PHYSICAL SCIENCE	5 cr.
PHSC 102	GENERAL PHYSICAL SCIENCE	5 cr.

Major Area Requirements

The courses in the following areas are required:

Family and Community Relationships

ECE 202	CHILD AND FAMILY	3 cr.
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Health, Safety and Nutrition

ECE 103	CHILD NUTRITION, HEALTH AND SAFETY	3 cr.
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Professionalism

ECE 215	EARLY CHILDHOOD SEMINAR	2 cr.
ECE 123	EARLY CHILDHOOD PROGRAM REG & BEST PRACT	2 cr.

Choose 5-6 credits from each content area below for a total of 30 credits:**Child Development and Learning (including Typical and Atypical)**

ECE 100	CHILD DEVELOPMENT: BIRTH TO SIX	3 cr.
ECE 210	LEARNING EXPERIENCES FOR YOUNG CHILDREN I LAB	3 cr.
EDUC& 203	EXCEPTIONAL CHILD	3 cr.

Curriculum Development and Implementation

ECE 112	CURRICULUM AND GUIDANCE FOR SCHOOL-AGERS	4 cr.
ECE 209	LEARNING EXPERIENCES FOR YOUNG CHILDREN I	3 cr.
ECE 211	LEARNING EXPERIENCES FOR YOUNG CHILDREN II	3 cr.
ECE 213	LEARNING EXPERIENCES FOR YOUNG CHILDREN III	3 cr.

Child Guidance

ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.
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Diversity, Inclusion, Multicultural

ECE 105	INDIVIDUALIZED INSTRUCTION I	2 cr.
ECE 106	INDIVIDUALIZED INSTRUCTION II	2 cr.
ECE 121	INTRODUCTION TO EARLY CHILDHOOD EDUCATION	4 cr.
ECE 202	CHILD AND FAMILY	3 cr.
ECE 208	EARLY LANGUAGE FACILITATION	2 cr.
EDUC& 203	EXCEPTIONAL CHILD	3 cr.

Observation, Assessment and Evaluation

ECE 106	INDIVIDUALIZED INSTRUCTION II	2 cr.
ECE 121	INTRODUCTION TO EARLY CHILDHOOD EDUCATION	4 cr.
ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.

Practicum/Field Experience (suggested minimum 300 hours)

ECE 210	LEARNING EXPERIENCES FOR YOUNG CHILDREN I LAB	3 cr.
ECE 212	LEARNING EXP FOR YOUNG CHILDREN II LAB	3 cr.
ECE 214	LEARNING EXP FOR YOUNG CHILDREN III LAB	3 cr.
ECE 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.

Total Required Credits: 90 minimum

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

ECE I-BEST- Initial Child Care (CERT)

I-BEST pairs English as a Second Language (ESL) and/or Adult Basic Education (ABE) instructors with career and technical education instructors in the classroom to concurrently provide students with literacy education and workforce skills. I-BEST challenges the traditional notion that students must first complete all levels of basic education before they can begin workforce training.

Major Area Requirements

ECE 103	CHILD NUTRITION, HEALTH AND SAFETY	3 cr.
ECE 111	EARLY CHILDHOOD EDUCATION WORKSHOPS (1 credit required)	1-3 cr.
ECE 114	ENVIRONMENTS FOR CHILDREN	3 cr.

ECE 121	INTRODUCTION TO EARLY CHILDHOOD EDUCATION	4 cr.
ECE 124	GUIDING BEHAVIOR OF YOUNG CHILDREN	3 cr.
ECE 199	COOPERATIVE WORK EXPERIENCE (2 credits required)	1-5 cr.
ECE 208	EARLY LANGUAGE FACILITATION	2 cr.
		Total Required Credits: 18

Program Outcomes

- Students will identify developmentally appropriate practices in both guidance strategies and curriculum development.
- Students will demonstrate effective oral and written communication appropriate to the field of Early Childhood Education.

Education

Teachers play a direct role in the life of almost every person and in the development of society as a whole. Shortages of trained educators are anticipated in the near future as many of those currently working in the profession reach retirement age.

Elementary teachers instruct students in basic concepts in several subjects, including mathematics, language arts, science, and social studies. They also introduce small children to formal learning in kindergarten.

Secondary teachers usually specialize in teaching one subject to high school students such as English, music, history, mathematics, languages, biology, chemistry, or others. Many secondary teachers spend at least some time teaching outside of their subject area. Duties may also include attending staff meetings, supervising extracurricular activities and meeting with parents.

A minimum of a bachelor's degree plus teaching certification is required to teach in grades kindergarten through 12.

Prospective education students should consult with an education advisor to plan a course of study. At Clark College, students usually complete General Education Requirements within the Associate in Arts degree. A specific course of study should be planned based on the requirements of the senior institution where the student will transfer.

Elementary Education - DTA/MRP (AA)

This pathway is applicable to students planning to prepare for an upper-division elementary education major.

As of January 2006, this document represents a new agreement between the following baccalaureate institutions offering Elementary Education bachelor's degrees and the community and technical colleges system. Baccalaureate institutions party to this agreement are: CWU, EWU, WSU, WWU, City University, Gonzaga, Heritage, PLU, SMU, SPU, Walla Walla University, and Whitworth.

Since Clark has had a long-standing degree path with WSUV in Elementary Education, students should follow the specific MRP for WSUV to ensure that they are meeting WSUV's cohort admissions requirements.

Although not required for this degree, students should be advised they must take the WEST-B in order to apply to teacher preparation programs.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework, and
- As of Fall 2011, Clark requires a course in Oral Communication, and
- Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic DTA Requirements

A. Basic Requirements

1. Communication Skills 10 cr.

2. Quantitative/Symbolic Reasoning Requirement 5 cr.
Intermediate algebra proficiency is required.

B. Distribution Requirements

1. Humanities 15-20 cr.

2. Social Sciences 20 cr.

3. Natural Sciences

D. Electives

1. Elective Courses

Credits that fulfill the requirements listed under MRP Requirements/Major Requirements to bring the total degree to 90 credits.

MRP Requirements

A. Basic Requirements

1. English Composition 10 cr.

2. Quantitative/Symbolic Reasoning Requirement

9-15 quarter-based credits of math content at the lower-division level must include number theory, geometry, probability and statistics, with a focus on the development of mathematical concepts in elementary education curriculum. These credits will be accepted by the baccalaureate institutions as fulfilling the lower division math requirements in the Direct Transfer Agreement (DTA) and any additional math credits which may go beyond those requirements will be accepted as electives. Intermediate algebra proficiency is required.

B. Distribution Requirements

1. Humanities 15-20 cr.

Required

3-5 credits public speaking

5 credits US History (might be a Social Science at some community colleges)

Recommended

7-12 credits from the following list: art, music, literature, or drama/theater

Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

2. Social Sciences 20 cr.

Representing at least 3 disciplines, including:

Required

5 credits World Civilization or non-Western History

Recommended

15 credits from the following list: Economics, Geography, Political Science, Psychology, or additional History.

Integrated coursework covering several of these topics is encouraged.

3. Natural Sciences**15 cr.**

- 5 credits Biological Sciences
- 5 credits Geology or Earth Science
- 5 credits physical science (Chemistry or Physics)2 of the above with lab.

C. Major Requirements

The baccalaureate institutions will accept 5 quarter credits of education-specific professional introduction coursework, if the coursework meets the following Washington endorsement competencies for Elementary Teachers:

- an exploration of the historical, philosophical and social aspects of elementary education
- an evaluation from the field site supervisor observing the student's work with children
- awareness of the certification process in the state of Washington

A minimum of 30 hours of K-8 classroom experience must be included during the degree program.

3-5 credits in gender/culture coursework

Students should be able to demonstrate computer literacy in software programs including word processing, PowerPoint, and spreadsheets, in addition to being proficient on the Internet. These skills may be demonstrated through a portfolio of files gathered during their education coursework.

D. Electives

Other college-level courses, of which a maximum of 15 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution. Where appropriate, preparation courses for the major, minor, or professional certification should ideally be included in this coursework.

Clark College Equivalents**A. Basic Requirements****1. Communication Skills**

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

2. Quantitative/Symbolic Reasoning Requirement

MATH 122	MATH FOR ELEMENTARY TEACHERS	5 cr.
and MATH 123	MATH FOR ELEMENTARY TEACHERS	5 cr.
and MATH 124	MATH FOR ELEMENTARY TEACHERS	5 cr.

B. Distribution Requirements**1. Humanities**

CMST& 220	PUBLIC SPEAKING (Fulfills oral communication requirement)	5 cr.
HIST& 146	UNITED STATES HISTORY I	5 cr.
or HIST& 147	UNITED STATES HISTORY II	5 cr.
or HIST& 148	UNITED STATES HISTORY III	5 cr.

2. Social Sciences

HIST& 126	WORLD CIVILIZATIONS I	5 cr.
or HIST& 127	WORLD CIVILIZATIONS II	5 cr.
or HIST& 128	WORLD CIVILIZATIONS III	5 cr.

3. Natural Sciences

15 credits in Natural Sciences include:

- 5 credits Biological sciences
- 5 credits Geology or Earth Science
- 5 credits physical sciences(Chemistry or Physics)

Two of the above with lab.

C. Major Requirements

EDUC& 201	INTRODUCTION TO EDUCATION	3 cr.
EDUC 210	INTRODUCTORY FIELD EXPERIENCE	3 cr.

2. Social Sciences

Students should consult with the transfer institution to ensure fulfillment of this requirement.

3. Natural Sciences

Students should consult with the transfer institution to ensure fulfillment of this requirement.

D. Electives

Notes

B. Distribution Requirements

2. Social Sciences

WSU, CWU, & SM require developmental (lifespan) psychology.

3. Natural Sciences

Total Required Credits: 90

Elementary Education - Transfer to WSU Vancouver (AA)

This pathway is applicable to students planning to prepare for an upper-division elementary education major. This degree is defined specifically for transfer to the WSUV cohort program in elementary education and replaces the AA-DTA/MRP for WSUV transfer in Elementary Education.

Students taking this degree should note that a change in transfer institution might change requirements, and advisors at the transfer institution should be consulted.

The coding for this degree is NOT different that of the standard Elementary Education degree.

Although not required for this degree, students should be advised they must take the WEST-B in order to apply to teacher preparation programs.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

Quantitative Skills (5 credits required)

MATH 122	MATH FOR ELEMENTARY TEACHERS	5 cr.
and MATH 123	MATH FOR ELEMENTARY TEACHERS	5 cr.
and MATH 124	MATH FOR ELEMENTARY TEACHERS	5 cr.

Health & Physical Education (3 credits required)

Oral Communications (5 credits required)

Humanities (15 credits required)

CMST& 220	PUBLIC SPEAKING (Fulfills oral communication requirement)	5 cr.
MUSC 106	MUSIC IN EARLY CHILDHOOD EDUCATION (List B)	3 cr.
Other Humanities*		7 cr.

Social Sciences (26-30 credits required)

ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
or ECON& 201	MICRO ECONOMICS	5 cr.
or ECON& 202	MACRO ECONOMICS	5 cr.
GEOG& 100	INTRODUCTION TO GEOGRAPHY	5 cr.
HIST& 146	UNITED STATES HISTORY I	5 cr.
or HIST& 147	UNITED STATES HISTORY II	5 cr.
or HIST& 148	UNITED STATES HISTORY III	5 cr.
POLS 111	AMERICAN NATIONAL GOVERNMENT AND POLITICS	5 cr.
or POLS 171	SURVEY OF THE UNITED STATES CONSTITUTION	3 cr.
PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.

Natural Sciences (15 credits required) (must include a lab course)

- 5 credits Biological Science

- 5 credits Physical Science

- 5 credits additional Natural Science

Major Area Requirements

EDUC& 201	INTRODUCTION TO EDUCATION	3 cr.
EDUC 210	INTRODUCTORY FIELD EXPERIENCE	3 cr.
ENGL 105	ENGLISH GRAMMAR	5 cr.

Total Required Credits: 90 Minimum

**For this degree only, ENGL105 may fulfill a List A Humanities requirement.*

Elementary Education DTA/MRP - WSUV Pathway (AA)

This pathway is applicable to students planning to prepare for upper division elementary education major. This degree is defined specifically for transfer to the WSUV cohort program in elementary education and replaces the AA-DTA for WSUV transfer in Elementary Education.

The courses listed below are based on admissions requirements for the 2012 Bachelor of Arts in Education/Teacher Preparation Program. Requirements may change as time goes forward, and students should consult with WSUV to keep abreast of these.

This degree is specifically tailored to WSUV. Students completing this program will receive an Elementary Education DTA/MRP. Students should consult with other institutions about their specific entry requirements.

The coding for this degree is NOT different that of the standard Elementary Education degree.

Although not required for this degree, students should be advised they must take the WEST-B in order to apply to teacher preparation programs.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education course work.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Generic DTA Requirements

A. Basic Requirements

- | | |
|--|--------|
| 1. Communication Skills | 10 cr. |
| 2. Quantitative/Symbolic Reasoning Requirement
Intermediate algebra proficiency is required | 5 cr. |

B. Distribution Requirements

- | | |
|---------------------|-----------|
| 1. Humanities | 15-20 cr. |
| 2. Social Sciences | 20 cr. |
| 3. Natural Sciences | |

MRP Requirements

A. Basic Requirements

- | | |
|--|--------|
| 1. English Composition | 10 cr. |
| 2. Quantitative/Symbolic Reasoning Requirement
9-15 quarter-based credits of math content at the lower division level must include number theory, geometry, probability and statistics, with a focus on the development of mathematical concepts in elementary education curriculum. These credits will be accepted by the baccalaureate institutions as fulfilling the lower division math requirements in the Direct Transfer Agreement (DTA) and any additional math credits which may go beyond those requirements will be accepted as electives.
Intermediate algebra proficiency is required | |

B. Distribution Requirements

1. Humanities

15-20 credits in Humanities include:

Required

3-5 credits public speaking

5 credits US History (might be a Social Science at some community colleges).

Recommended

7-12 credits from the following list: art, music, literature, or drama/theater.

Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

2. Social Sciences

20 credits representing at least 3 disciplines, include:

Required

5 credits World Civilization or non-Western History

Recommended

15 credits from the following list: Economics, Geography, Political Science, Psychology, or additional History.

Integrated coursework covering several of these topics is encouraged.

3. Natural Sciences

15 credits in Natural Sciences include:

- 5 credit Biological sciences
 - 5 credits Geology or Earth Science
 - 5 credits physical sciences (Chemistry or Physics)
- two of the above with lab.

C. Major Requirements

The baccalaureate institutions will accept 5 quarter credits of education-specific professional introduction coursework, if the coursework meets the following Washington endorsement competencies for

Elementary Teachers:

- an exploration of the historical, philosophical and social aspects of elementary education
- an evaluation from the field site supervisor observing the student’s work with children
- awareness of the certification process in the state of Washington

A minimum of 30 hours of K-8 classroom experience must be included during the degree program.
 (Students should consult with the transfer institution to ensure fulfillment of this requirement).

3-5 credits in gender/culture coursework

(Students should consult with the transfer institution to ensure fulfillment of this requirement).

Students should be able to demonstrate computer literacy in software programs including word processing, PowerPoint, spreadsheets, in addition to being proficient on the Internet. These skills may be demonstrated through a portfolio of files gathered during their education course work.

(Students should consult with the transfer institution to ensure fulfillment of this requirement).

D. Electives

Elective Courses

Other college-level courses, of which a maximum of 15 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution. Where appropriate, preparation courses for the major, minor, or professional certification should ideally be included in this course work.

Clark College Equivalents

A. Basic Requirements

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

2. Quantitative/Symbolic Reasoning Requirement

MATH 122	MATH FOR ELEMENTARY TEACHERS	5 cr.
and MATH 123	MATH FOR ELEMENTARY TEACHERS	5 cr.
and MATH 124	MATH FOR ELEMENTARY TEACHERS	5 cr.

B. Distribution Requirements

1. Humanities

Requirements:

CMST& 220	PUBLIC SPEAKING	5 cr.
MUSC 106	MUSIC IN EARLY CHILDHOOD EDUCATION	3 cr.
HIST& 146	UNITED STATES HISTORY I	5 cr.
or HIST& 147	UNITED STATES HISTORY II	5 cr.
or HIST& 148	UNITED STATES HISTORY III	5 cr.
ENGL 105	ENGLISH GRAMMAR	5 cr.

2. Social Sciences

Required for the MRP

HIST& 126	WORLD CIVILIZATIONS I	5 cr.
or HIST& 127	WORLD CIVILIZATIONS II	5 cr.
or HIST& 128	WORLD CIVILIZATIONS III	5 cr.

Required for WSUV admission

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.
POLS 111	AMERICAN NATIONAL GOVERNMENT AND POLITICS	5 cr.
or POLS 171	SURVEY OF THE UNITED STATES CONSTITUTION	3 cr.
GEOG& 100	INTRODUCTION TO GEOGRAPHY	5 cr.
and ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
or ECON& 201	MICRO ECONOMICS	5 cr.
or ECON& 202	MACRO ECONOMICS	5 cr.

OR		
GEOG& 207	ECONOMIC GEOGRAPHY	5 cr.
or GEOG 220	THE GEOPOLITICS OF THE MIDDLE EAST	5 cr.
or GEOG 221	THE GEOPOLITICS OF AFRICA	5 cr.
or GEOG 222	THE GEOPOLITICS OF CHINA, JAPAN & EAST ASIA	5 cr.
or GEOG 223	THE GEOPOLITICS OF SOUTH AND CENTRAL ASIA	5 cr.

3. Natural Sciences

15 credits in Natural Sciences include:

- 5 credits Biological sciences
- 5 credits Geology or Earth Science
- 5 credits physical sciences (Chemistry or Physics)
two of the above with lab.

C. Major Requirements

1. Communication Skills

EDUC& 201	INTRODUCTION TO EDUCATION	3 cr.
EDUC 210	INTRODUCTORY FIELD EXPERIENCE	3 cr.

D. Electives

Elective Courses

Credits that fulfill the requirements under MRP Electives to bring the total degree to 90 credits

Notes

A. Basic Requirements

2. Quantitative/Symbolic Reasoning Requirement

The Math 120-121 sequence was discontinued in 2011-12 it will continue to be accepted for the degree at this time. New students need to take the 15-credit sequence.

B. Distribution Requirements

2. Social Sciences

GEOG& 207 is formerly ECON107 or GEOG 107.

GEOG 207, 220, 221, 222, or 223 will be accepted for both the geography and the economics requirements.

Total Required Credits: 90

Emergency Medical Services

Emergency Medical Technician

Clark College offers a Certificate of Achievement in Emergency Medical Technician-Basic (EMT-B). The EMT-B course is designed to enhance job opportunities in pre-hospital emergency settings. A variety of community agencies such as ambulance companies, police and fire departments, and large industries utilize employees with EMT-B training. This program includes lecture, laboratory, emergency room observation, and field experience on an ambulance or fire rescue unit as available.

Emergency Medical Technician-Basic

EMT 103 is a ten-credit-hour Clark College course taught at the Northwest Regional Training Center (NWRTC). Check the Clark College website for directions to the training center. Students must bring the following items to the first night of class:

- Copy of current American Heart Association healthcare provider CPR card (or take CPR 032 within first two weeks of class).
- Copy of valid driver's license.

- Washington State Patrol criminal background check (within six [6] months of course date).
- MMR immunization (twice in lifetime or within last 10 years).
- Hepatitis B immunization (series of three) or signed waiver.
- Negative tuberculosis skin test or chest x-ray (within past six [6] months).
- Must be 18 years of age.
- Proof of high school completion (transcripts) or GED.

Please call the NWRTC office at (360) 397-2100 if you have any questions about the above requirements.

Emergency Medical Technician - Basic (CA)

To earn the Certificate of Achievement, students must complete the courses listed below with a grade point average (GPA) of 2.0 or above in each offering.

Program Requirements

FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.
EMT 103	EMERGENCY MEDICAL TECHNICIAN - BASIC	10 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	3 cr.
and HEOC 101	BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB *	1 cr.
or BIOL 164	HUMAN BIOLOGY *	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB *	1 cr.
HEOC 120	AIDS EDUCATION	1 cr.
HEOC 125	MEDICAL VOCABULARY (strongly recommended)	3 cr.

Total Required Credits: 14-19

*HEOC 100 and 101, or BIOL 164 & 165, must be seven years current upon program entry.

Affiliation Students who are not affiliated with an appropriate agency have 18 months after completing the program to gain affiliation and take the Washington state exam.

All Emergency Medical Technician-Basics wishing to work in Washington must obtain state certification.

Program Outcomes

- Administer first aid treatment or life support care to sick or injured persons in prehospital settings.
- Perform emergency assessment and treatment procedures, observing, recording, and reporting to the receiving facility, the patient's condition or injury.
- Communicate effectively and professionally using verbal, nonverbal, and written language with patients, colleagues, the public, diverse populations, and other healthcare providers.
- Model professional behaviors and make appropriate decisions guided by ethical principles and core values.

Engineering

Engineering is a profession where you are challenged to develop creative solutions to problems related to every aspect of life, through the application of mathematical and scientific principles, experience, creativity, and common sense.

Clark College offers the first two years of study of a four-year engineering degree program. The first two years main focus of study are preparatory courses in mathematics, chemistry, physics, and basic engineering courses required by the student's engineering field and transfer school.

Those who study engineering today can look forward to a rewarding career where they experience personal achievement, exercise their curiosity, give service to society, and realize financial success.

Engineers work on a wide variety of projects: basic and applied research, product development, design and modification of processes and equipment, and plant operation. Some enter sales, marketing, management, consulting, government agencies, or teaching.

Engineers plan, develop, and oversee the research and design of construction and manufacturing projects. They work on teams with engineers from other fields to design integrated systems and solve complex technical problems. Engineers also develop and use computer-aided design programs to simulate and test products and systems.

Engineers can specialize in many fields including:

- Aeronautical/Aerospace
- Bioengineering
- Biomedical
- Ceramic
- Chemical/Pulp & Paper
- Civil
- Computer
- Electrical/Electronics
- Environmental
- Forestry
- Manufacturing/Industrial
- Marine
- Materials
- Mechanical
- Software

There are many other interdisciplinary fields including architecture, law, sports, human factors and acoustics.

Engineering (AST2)

This is a suggested program for the first two years of a four-year Engineering program. These lower-division course requirements will vary depending on the math and English placement at Clark College, and the requirements of the four-year institution to which you transfer. It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer. Additional courses are needed to satisfy graduation requirements for the Associate in Science degree.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (10 credits required)

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)

Pre-Major Program Requirements

CHEM& 141	GENERAL CHEMISTRY I	4 cr.
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CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
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MATH& 153	CALCULUS III	5 cr.
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MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
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MATH& 254	CALCULUS IV	5 cr.
PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.

Elective Requirements*

CHEM& 142	GENERAL CHEMISTRY II	4 cr.
CHEM& 143	GENERAL CHEMISTRY III	4 cr.
CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.
CS& 131	COMPUTER SCIENCE I C++	5 cr.
CS& 141	COMPUTER SCIENCE I JAVA	5 cr.
CSE 121	INTRODUCTION TO C	5 cr.
CSE 222	INTRODUCTION TO DATA STRUCTURES	5 cr.
ENGR 101	ENGINEERING AND COMPUTER SCIENCE ORIENTATION	1 cr.
ENGR& 104	INTRODUCTION TO DESIGN	5 cr.
ENGR 107	INTRO TO AEROSPACE ENGINEERING	2 cr.
ENGR 109	INTRODUCTION TO ENGINEERING	5 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
ENGR 115	GEOMETRIC DIMENSIONING AND TOLERANCING	2 cr.
ENGR 120	INTRO TO ELECTRICAL/COMPUTER SCI & ENGINEERING	5 cr.
ENGR 121	FIELD SURVEY I	5 cr.
ENGR 140	BASIC AUTOCADD	4 cr.
ENGR 150	BASIC SOLIDWORKS	4 cr.
ENGR 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.
ENGR& 204	ELECTRICAL CIRCUITS	5 cr.
ENGR& 214	STATICS	5 cr.
ENGR& 215	DYNAMICS	5 cr.
ENGR 221	MATERIALS SCIENCE	5 cr.
ENGR& 224	THERMODYNAMICS	5 cr.
ENGR& 225	MECHANICS OF MATERIALS	5 cr.
ENGR 239	MANUFACTURING PROCESSES	5 cr.
ENGR 250	DIGITAL LOGIC DESIGN	5 cr.
ENGR 252	ELECTRICAL CIRCUITS AND SIGNALS	5 cr.
ENGR 253	SIGNALS AND SYSTEMS	5 cr.
ENGR 270	DIGITAL SYSTEMS AND MICROPROCESSORS	5 cr.
ENGR 280	SELECTED TOPICS	1-5 cr.
ENGR 290	SPECIAL PROJECTS	1-6 cr.

ENGL& 235	TECHNICAL WRITING	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
		Total Required Credits: 90

**Requirements vary by school and program. See an Engineering faculty advisor regarding proper selection.*

English (Area of Study)

The Clark College English department offers a myriad of courses ranging from composition to studies of Shakespeare.

The fundamental courses offered by Clark's English department are designed to teach students to use the library, conduct research, comprehend material, analyze information, evaluate ideas, develop and organize their own ideas, use correct word choice and grammar, proofread and edit, and improve both their verbal and their written communication.

A four-year degree in English can serve as the foundation for a career in writing, law, business, or education. Many students pursuing a career in secondary education have earned their Associate in Arts transfer degree in English at Clark and continued their coursework at WSU Vancouver, earning their Bachelor of Arts in English and a secondary education certificate, or a master's degree in teaching.

Exceptional English students can earn credit and gain valuable teaching experience working as English tutors. The College's Tutoring/Writing Center provides free assistance to students, aiding them in becoming more effective and evaluative writers.

Because course requirements vary at each institution, students interested in pursuing a four-year degree in English should work with advisors at Clark and their transfer institution to develop a course of study.

English department courses typically transfer to four-year institutions. However, students should contact their transfer institution to clarify each course's transferability.

Environmental Science

Environmental scientists apply mathematics and scientific principles to solve environmental problems. They develop ways to reduce, correct, or prevent damage to the environment.

Following the completion of a Bachelor of Arts or Science degree at a four-year institution of the student's choice, several avenues of employment or advancement are open. A few of these are:

- Environmental engineering
- Environmental law
- State and federal wildlife agencies
- Environmental science teaching at the elementary or secondary level
- Environmental research scientist
- Environmental planning/policy analyst
- Nonprofit environmental organizations

Environmental Science is a highly interdisciplinary field; students interested in careers in the Environmental Sciences will need a fundamental understanding of a variety of sciences and social sciences. Depending on specific career objectives, students pursuing a four-year degree in Environmental Science may want to emphasize additional coursework in such fields as Biology, Chemistry, Physics, Geology, Oceanography, or the Atmospheric Sciences. Students planning careers in Environmental Studies, Environmental Regulation and Policy, or Regional Planning may want to emphasize additional coursework in the Social Sciences, Business, or Economics.

Environmental Science (AST1)

This is a suggested program for the first two years of major study in Environmental Science. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (10 credits required)

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)

ENVS 231	ENVIRONMENTAL POLITICS	5 cr.
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or POLS 231	ENVIRONMENTAL POLITICS	5 cr.
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Humanities List A		5 cr.
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Humanities or Social Sciences		5 cr.
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Pre-Major Program Requirements

BIOL& 221	MAJORS ECOLOGY/EVOLUTION	5 cr.
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BIOL& 222	MAJORS CELL/MOLECULAR	5 cr.
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BIOL& 223	MAJORS ORGANISMAL PHYS	5 cr.
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CHEM& 141	GENERAL CHEMISTRY I	4 cr.
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CHEM& 142	GENERAL CHEMISTRY II	4 cr.
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CHEM& 143	GENERAL CHEMISTRY III	4 cr.
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CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
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CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
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CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.
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MATH 203	DESCRIPTIVE STATISTICS	3 cr.
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MATH 204	INFERENCE STATISTICS	3 cr.
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Program Requirements

ENGL& 102	ENGLISH COMPOSITION II	5 cr.
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or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
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ENVS 211	INTRO TO ENVIRONMENTAL SYSTEMS	5 cr.
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ENVS 221	ENVIRONMENTAL SCIENCE: PROBLEM SOLVING	5 cr.
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GEOL 102	INTRO TO GEOL II: EARTH'S SURFACE PROCESSES	5 cr.
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PHYS& 121	GENERAL PHYSICS I	5 cr.
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or PHYS& 221	ENGINEERING PHYSICS	5 cr.
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Suggested Electives

GEOL& 101	INTRO PHYSICAL GEOLOGY	5 cr.
PHYS& 122	GENERAL PHYSICS II	5 cr.
or PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 123	GENERAL PHYSICS III	5 cr.
or PHYS& 223	ENGINEERING PHYSICS	5 cr.
SURV 125	INTRODUCTION TO GIS	3 cr.

Total Required Credits: 90 minimum

Fitness Trainer

The Fitness Trainer program at Clark is a 90-credit (2-year) program. Upon completion of the program requirements, students will earn an Associate in Applied Science degree. Fitness Training is an emerging profession within the health care industry in the field of preventive medicine. Fitness Trainers have the opportunity to make a positive difference in people's health and quality of life. Students will develop knowledge, skills, and abilities necessary for working with clients who are interested in improving their health through fitness. Coursework will include theory and practical application courses related to fitness training.

In order to progress from one course or quarter to the next, students enrolled in the Clark College Fitness Trainer program must earn at least a cumulative GPA of 2.0 (C average) for their General Education classes, and a 2.0 or higher in each Fitness Trainer Specialty class. Fitness Trainer Specialty classes have limited seats available.

Students who are interested in this program should refer to the Fitness Trainer website at www.clark.edu/fitnesstrainer and follow the direction given on the "Get Started" page (right-hand menu item).

Student Learning Outcomes

- Communicate exercise-science related principles at levels appropriate to both clients and professional peers.
- Use appropriate strategies to motivate clients to adopt healthier behaviors.
- Design fitness plans for healthy adults, special populations (e.g., pregnant women, elderly, those with chronic diseases, etc.), and performance-oriented clients (e.g., those training to better perform a sport) utilizing appropriate principles of safe and effective exercise prescription.
- Design fitness-related assessments on clients.
- Effectively instruct clients how to perform safe and effective exercise technique.
- Exhibit a foundation of professional and business-related skills necessary for becoming a personal trainer.
- Be prepared for a nationally accredited Fitness Trainer certification exam.

Students who complete the Fitness Trainer program at Clark College may choose to continue on to earn a Bachelor of Arts degree in Exercise and Sports Science from Concordia University in Portland or from Central Washington University. Please see a faculty advisor for additional information about transfer options and requirements.

For information regarding the application process, preliminary requirements, and final admission process, please refer to www.clark.edu/fitnesstrainer online.

Fitness Trainer (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
BUS 211	BUSINESS COMMUNICATIONS	3 cr.
or ENGL& 102	ENGLISH COMPOSITION II	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.

Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS	3 cr.
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Computational Skills (3 credits required)

MATH 090	ELEMENTARY ALGEBRA	5 cr.
or MATH 091	ALGEBRA II	5 cr.

Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION *	5 cr.
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Humanities (3 credits required)

Social Sciences (3 credits required)

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
or PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.

Natural Sciences (3 credits required)

BIOL 164	HUMAN BIOLOGY **	4 cr.
BIOL 165	HUMAN BIOLOGY LAB **	1 cr.

Major Area Requirements

FT 101	FITNESS TRAINER SEMINAR	1 cr.
FT 151	FITNESS CENTER SKILLS	2 cr.
FT 152	FLEXIBILITY, POSTURE AND CORE	2 cr.
FT 153	EXERCISE TECHNIQUES	2 cr.
FT 154	POWER DEVELOPMENT	2 cr.
or FT 155	GROUP FITNESS INSTRUCTOR (offered Summer Quarter)	2 cr.
FT 200	NUTRITION FOR FITNESS	3 cr.
FT 210	WELLNESS COACHING	3 cr.
FT 220	FACILITY MANAGEMENT	3 cr.
FT 230	FITNESS TESTING	3 cr.
FT 250	STRUCTURAL KINESIOLOGY	3 cr.
FT 251	EXERCISE PHYSIOLOGY	4 cr.
FT 260	EXERCISE PRESCRIPTION I-HEALTHY POPULATIONS	5 cr.
FT 261	EXERCISE PRESCRIPTION II-SPECIAL POPULATIONS	5 cr.
FT 262	EXERCISE PRESCRIPTION III-PERFORMANCE TRAINING	4 cr.
FT 270	PROFESSIONAL ASPECTS OF FITNESS TRAINING	3 cr.
FT 275	FITNESS TRAINING INTERNSHIP	4 cr.

FT 290	SPECIAL PROJECTS (1 credit required)	1-5 cr.
FT 299	FINAL SKILL ASSESSMENT	1 cr.
HLTH 100	FOOD AND YOUR HEALTH	2 cr.
PE 291	CARE AND PREVENTION OF ATHLETIC INJURIES	3 cr.

Additional Major Area Requirements

Elective(s)***	3 cr.
Total Required Credits: 90-92	

*CMST& 210 fulfills Humanities and Human Relations requirements.

**BIOL& 251, 252, and 253 can substitute for BIOL 164/165.

*** Suggested Electives (can be taken any quarter) - any Health, HPE, PE, Business or Management courses.

Program Outcomes

- Communicate exercise-science related principles at levels appropriate to both clients and to professional peers.
- Use appropriate strategies to motivate clients to adopt healthier behaviors.
- Perform health- and fitness-related assessments on clients.
- Design fitness plans for healthy adults, special populations, and performance-oriented clients utilizing appropriate principles of safe and effective exercise prescription.
- Effectively instruct clients how to perform safe and effective exercise technique.
- Exhibit a foundation of professional and business-related skills necessary for becoming a personal trainer.
- Successfully complete all criteria necessary for a nationally accredited Fitness Trainer certification exam.
- Prepare to be a competent entry-level Personal Fitness Trainers in the cognitive (knowledge), psychomotor (skills), and affective (abilities) learning domains.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Group Fitness Instructor (CERT)

The Fitness Trainer Program's Group Fitness Instructor Certificate of Completion program prepares students with the necessary knowledge, skills and abilities to become group fitness instructors. Students completing the program may take the ACE™ Group Fitness Instructor certification exam that is hosted at Clark College shortly after completing the program requirements listed below.

Major Area Requirements

FT 150	FUNDAMENTALS OF FITNESS	3 cr.
or FT 260	EXERCISE PRESCRIPTION I-HEALTHY POPULATIONS	5 cr.
FT 155	GROUP FITNESS INSTRUCTOR	2 cr.
HLTH 120	ADULT CPR AND FIRST AID	1 cr.
or FT 220	FACILITY MANAGEMENT	3 cr.
		Total Required Credits: 6-10

Program Outcomes

- Apply appropriate skills as a group fitness instructor.
- Successfully complete all criteria necessary for a nationally accredited Fitness Trainer certification exam.
- Apply basic principles of fitness.

General Science Education

This is a state-approved transfer program for the first two years of major study in general sciences for future secondary general science teachers. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

General Science Education (AST1)

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has this difference from the Articulated Degree defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for checking specific major requirements of baccalaureate institutions in the year prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic Requirements

A. Basic Requirements

- 1. Communication Skills** 5 cr.
- 2. Quantitative/Symbolic Reasoning Requirement** 5 cr.
Intermediate algebra proficiency is required.

B. Distribution Requirements

1. Humanities

15 cr.

15 credits of humanities and social science with at least five credits taken from each. Three different subjects required. No more than 5 credits of performance classes are allowed.

2. Science Pre-major Requirement

- Chemistry for science majors sequence (15 quarter credits)
 - Third-quarter calculus or approved statistics course (5 quarter credits)
 - Biology for science majors or physics (calculus or non-calculus based) (15 quarter credits)
 - Additional requirements: 10 - 15 quarter credits in physics, geology, organic chemistry, biology, or mathematics, consisting of courses normally taken for science majors (not general education), preferably in a 2- or 3-quarter sequence.
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C. Electives

1. Elective Courses

Additional college-level courses so that total earned is at least 90 credits. May include prerequisites for major courses (e.g. pre-calculus), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

Articulated Degree Requirements

A. Basic Requirements

1. English Composition

5 cr.

2. Quantitative/Symbolic Reasoning Requirement

Calculus

10 cr.

Intermediate algebra proficiency is required.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

5 quarter credits Introductory Speech

5 quarter credits General Psychology

2. Science Pre-major Requirement

- 5 quarter credits statistics

PLUS

THREE OUT OF FOUR OF THE FOLLOWING:

- 15 quarter credits General Chemistry
 - 15 quarter credits Biology for Majors
 - 15 quarter credits Physics (algebra or calc-based)
 - 10 quarter credits Geology (physical and historical)
-

C. Electives

1. Elective Courses

10-15 credits, depending on pathways above.

5 additional quarter credits of English composition.

Field Experience or Intro to Education recommended.

15 quarter credits of Physics recommended.

Clark College Equivalents

A. Basic Requirements

1. Communication Skills

ENGL& 101

ENGLISH COMPOSITION I

5 cr.

2. Quantitative/Symbolic Reasoning Requirements

MATH& 151

CALCULUS I

5 cr.

MATH& 152

CALCULUS II

5 cr.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

CMST& 220	PUBLIC SPEAKING	5 cr.
PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
Plus 5 additional HUM or SS credits		

2. Science Pre-major Requirement

MATH 203	DESCRIPTIVE STATISTICS	3 cr.
and MATH 204	INFERENCE STATISTICS	3 cr.

PLUS three of four of these sequences:

1. Chemistry

CHEM& 141	GENERAL CHEMISTRY I	4 cr.
CHEM& 142	GENERAL CHEMISTRY II	4 cr.
CHEM& 143	GENERAL CHEMISTRY III	4 cr.
CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.

2. Biology

BIOL& 221	MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL& 222	MAJORS CELL/MOLECULAR	5 cr.
BIOL& 223	MAJORS ORGANISMAL PHYS	5 cr.

3. Physics

PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.

4. Geology

GEOL& 101	INTRO PHYSICAL GEOLOGY	5 cr.
GEOL& 103	HISTORICAL GEOLOGY	5 cr.

C. Electives

1. Elective Courses

ENGL& 102	ENGLISH COMPOSITION II Required	5 cr.
EDUC& 201	INTRODUCTION TO EDUCATION	3 cr.
and EDUC 210	INTRODUCTORY FIELD EXPERIENCE	3 cr.

5 additional credits required if only 45 credits are taken in the major area above (if Geology is chosen as an option).

Plus additional credits to reach 90 minimum quarter credits. These may include needed college-level calculus prerequisites.

Notes

A. Basic Requirements

2. Quantitative/Symbolic Reasoning

Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

2. Science Pre-major Requirement

Students should be advised that some baccalaureate institutions require physics with calculus to meet this requirement.

C. Electives

1. Elective Courses

A maximum of five (5) quarter credits of "gray area" courses will be accepted in the remaining credits category.

Total Required Credits: 90

Geology

Geology is the study of the Earth's chemistry, physics, and history. Geologists work to understand the complex systems at work in our planet and, through this work, to understand the origin and evolution of the landscapes that surround us. Geologists work in natural resource development, natural hazard management, environmental monitoring, and pollution mitigation. Research subjects encompass everything from glacier systems to volcanoes to the fossil history of the evolution of life.

Career Opportunities

Careers in Geology generally require advanced degrees. Here at Clark College, you can begin a program that will lead to advanced degrees at any major university.

Job opportunities through private, federal, and state agencies exist in:

- Climate Change Studies
- Energy
- Environmental Monitoring and Mitigation
- Geological Engineering
- Mining
- Petroleum

Geology (AST1)

This is a suggested program for the first two years of major study in Geology. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible. Additional courses are needed to satisfy graduation requirements for the Associate in Science or the Associate in Arts degree.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (10 credits required)

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS	3 cr.
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or HLTH Health course		2 cr.
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and PE Activity Course		1 cr.
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Humanities & Social Sciences (15 credits required)

CMST& 220	PUBLIC SPEAKING	5 cr.
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Pre-Major Program Requirements

GEOL& 101	INTRO PHYSICAL GEOLOGY	5 cr.
GEOL 102	INTRO TO GEOL II: EARTH'S SURFACE PROCESSES	5 cr.
GEOL 218	FIELD STUDIES IN GEOLOGY	1-6 cr.
MATH& 153	CALCULUS III	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

Chemistry Sequence- minimum 16 credits

CHEM& 141	GENERAL CHEMISTRY I	4 cr.
CHEM& 142	GENERAL CHEMISTRY II	4 cr.
CHEM& 143	GENERAL CHEMISTRY III	4 cr.
CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.

Additional Science Sequence Requirements- 15 credits

PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.

Total Required Credits: 90

Health & Physical Education (Area of Study)

There are a wide variety of career opportunities available with a degree in Health and/or Physical Education. Students may seek jobs in fitness training, fitness center management, coaching, wellness promotion, preventative health care, or nutrition, for example. Advanced degrees would prepare students for careers in sports medicine, athletic training, sports psychology, health education, physical education, physical therapy, biomechanics/kinesiology and integrative medicine. Qualified applicants usually have a strong science background with exemplary communication skills.

Students interested in careers in any of these fields may wish to see a member of the Health and Physical Education (HPE) Division for advising at the earliest possible time in their academic pursuits. It is important for students to make a decision about which four-year institution they will attend in order to expedite their college experience.

RELATED PROGRAMS

Fitness Trainer

Please see the Fitness Trainer program curriculum in the Career and Technical Programs section of the Clark College Catalog. Information is also available on the Clark College website at www.clark.edu/fitnesstrainer.

Group Fitness Instructor

Please find the requirements for this Certificate of Completion in the Program Information for Fitness Trainer.

Health Informatics

Starting in the winter 2012 quarter, Clark College offered an exciting new health care technology college transfer degree program in Health Informatics Information Technology.

Health care is a fast growing and increasingly information-intensive industry. More and more professionals are needed to keep pace as the technology continues to change and advance.

Health informatics Information Technology (HIIT) is the study of resources and methods for the management of health information. The field encompasses and utilizes advanced computer technology to coordinate the computer information systems used by hospitals, medical clinics and health care professionals. For those who are well prepared, health information technology offers a bright, rewarding and well paying career pathway.

Electronic health systems are quickly replacing inefficient and costly paper records so that health care providers can quickly review and update a patient's medical history. Patients who have had to move, had to change doctors, or required emergency medical attention, know the importance of getting medical records transferred quickly and how difficult that is to accomplish in a paper-based system. Health informatics is making this transformation possible at a regional and national level.

Program Overview

Students completing Clark College's Associate in Arts - Option B (AAB) degree can continue on to a bachelor's degree program in Health Informatics Information Technology at Oregon Institute of Technology (OIT). In fact, Clark's new Health Informatics IT program is specifically designed only for transfer to OIT's program, which is taught at OIT's Portland campus near Wilsonville.

The OIT program is intended to provide graduates with a well prepared business and scientific knowledge base and the computer science or information technology skills to integrate computer technology in the health care field.

Career opportunities in health informatics IT are increasing in a variety of health organizations that includes hospitals, medical insurers, public health agencies, research institutions, medical groups and clinics and industries engaged in health care IT. Graduates are employed as consultants, managers, systems designers, database administrators, systems analysts and researchers. Opportunities for advancement are many and they are either in a technical or managerial area.

Salaries have grown in recent years in keeping with the growth of career opportunities in the field. More career and salary related information in health information IT can be obtained by going to the OIT Health Informatics IT career site.

Transferring to the Oregon Institute of Technology HIIT Bachelor Program

The Oregon Institute of Technology (OIT) offers a regionally accredited Bachelor of Science degree in Health Informatics Information Technology (HIIT) at their Portland campus near Wilsonville, Oregon. OIT's health informatics IT program offers a real world, hands-on approach to education to provide you with the necessary skills that are increasingly in need by health care providers.

Many of Clark's Associate in Arts - Option B degree courses have been carefully designed to transfer into the OIT program. In fact, Clark College's degree transfer program in Health Informatics IT provides for more total transfer credits (140) to the OIT Health Informatics bachelor's degree program than any other regional community college.

To learn more about OIT's Health Informatics bachelor's program, please visit the OIT website. It is highly recommended that you consult with the Clark College advising department regarding course schedules and degree requirements at both Clark College and OIT. Academic advisors can help you sort out the answers to most of your transfer degree questions. Clark academic advisors can put you in touch with an OIT representative or a financial advisor at either school about courses, schedules and costs, including out-of-state tuition and fees at Oregon Institute of Technology.

Course Planning

If you're interested in pursuing a career in health informatics, it is advisable to make an appointment with a Clark College academic advisor to review your career and program pursuits. Many courses necessary to fulfill the Associate in Arts - Option B HIIT transfer degree requirements are taught only once a year at Clark College. Some courses may also be available online but vary by quarter. The Clark College advising department can help you to map out courses, schedules, costs and other transfer related details.

Health Informatics (AA)

The following degree pathway outlines a plan for students to transfer to Oregon Institute of Technology. OIT has agreed to transfer all of the courses listed as a block to allow junior status to the Health Informatics program. A student may stop out of the program or choose to take the elective courses at another institution and still be awarded the Option B degree if:

- the required courses are completed (some technical courses may be waived if work experience and proficiency can be shown)
- a minimum of 90 credits are earned, AND
- Clark College residency requirements are met.

AA-Option B General Education Requirements

Communication Skills

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills

MATH 111	COLLEGE ALGEBRA	5 cr.
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Humanities

CMST 216	INTERCULTURAL COMMUNICATION	5 cr.
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5 Additional Humanities credits-3 credit limit on List B		5 cr.
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(CMST& 220 & CMST& 230 excluded here)

ECON& 201	MICRO ECONOMICS	5 cr.
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Social Sciences

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
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Sciences

(OIT allows MATH courses to be counted here)

MATH 203	DESCRIPTIVE STATISTICS	3 cr.
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MATH 204	INFERENCE STATISTICS	3 cr.
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HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY	3 cr.
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and HEOC 101	BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB	1 cr.
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or BIOL 164	HUMAN BIOLOGY	4 cr.
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and BIOL 165	HUMAN BIOLOGY LAB	1 cr.
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Additional General Education Requirements (OIT degree placement noted)

BMED 110	MEDICAL TERMINOLOGY I	3 cr.
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CMST& 220	PUBLIC SPEAKING	5 cr.
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CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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ECON& 202	MACRO ECONOMICS	5 cr.
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ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
or ENGL& 235	TECHNICAL WRITING	5 cr.

Major Area Requirements

ACCT& 201	PRINCIPLES OF ACCOUNTING I	5 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.
CTEC 150	INTRO TO LOCAL AREA NETWORKS	3 cr.
CTEC 180	INTRODUCTION TO ACCESS	3 cr.
CTEC 181	INTRODUCTION TO DATABASE DESIGN USING ACCESS	5 cr.
CTEC 210	A+ ESSENTIALS	6 cr.
DNET 220	INTRO TO NETWORK SERVERS: WINDOWS AND LINUX	6 cr.
DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.
HI 201	INTRODUCTION TO US HEALTH CARE SYSTEM	3 cr.
HI 202	INTRODUCTION TO HEALTH CARE QUALITY	3 cr.
HI 210	INTRODUCTION TO HEALTH SERVICES MANAGEMENT	3 cr.
HI 211	INTRODUCTION TO HEALTH INFORMATICS	3 cr.

Transferrable General Education

This is an additional course that OIT will accept from Clark College. You could choose to transfer before completing these and receive a degree if minimum credit, residency, and requirements are established.

MATH/SCIENCE/SOCIAL SCIENCE ELECTIVE	5 cr.
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Total Required Credits: 116-117

Honors Program

The Transfer AA Honors Program is designed to promote excellence in learning and celebrate exceptional student achievement. Students admitted to the Honors Program have the opportunity to take intellectually enriching honors courses with other outstanding students, work closely with a faculty mentor, and complete an independent capstone project relevant to their area of interest.

Program admission requirements

Students must meet the following requirements for admission to the program:

- At least 12 college-level credits with a cumulative GPA of 3.50 or higher
- Completion of ENGL& 101 with a grade B+ or higher
- Eligibility for enrollment in MATH 093 or higher

One or more of the admission requirements above may be waived if a Clark faculty member submits a formal recommendation of admission on behalf of the student. An online application form is available at www.clark.edu/honors

Transfer AA Honors Certificate

To earn the Honors Certificate, students must satisfy the following requirements:

- Completion of 20 credits of Honors-designated courses

- Completion of a 3-credit Honors capstone course
- 3.50 cumulative GPA
- Concurrent completion of Transfer AA degree requirements

Honors Certificate (Transfer) (AA)

To earn the Transfer AA Honors Certificate, students must complete the following courses and concurrently satisfy the degree requirements for an Associate in Arts degree, Associate in Science degree, or Associate in Fine Arts degree.

20 credits selected from the following Honors-designated courses:

ART 223	ART IN THE TWENTIETH CENTURY	5 cr.
BIOL 180	BIOETHICS	3 cr.
or HUM 180	BIOETHICS	3 cr.
CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
ENGL 103	ADVANCED ENGLISH COMPOSITION	3 cr.
ENGL 272	INTRODUCTION TO SHAKESPEARE	3 cr.
HIST& 215	WOMEN IN U.S. HISTORY	5 cr.
WS 101	INTRODUCTION TO WOMEN'S STUDIES	5 cr.

Total Required Credits: 23

Students must also complete a 3-credit 290 Special Projects: Honors Capstone course.

International Studies Certificate

The International Studies Certificate Program recognizes the growing importance of global interdependence and diversity. It is of special interest to students planning careers in fields emphasizing backgrounds in such areas as foreign languages, regional studies, business, and economics.

International Studies Certificate

For students in World Languages (French, German, Japanese, or Spanish) interested in emphasizing courses with a strong international focus as they complete the distribution requirements for their Associate of Arts degree.

To earn the Certificate (which appears as a special notation on the transcript), students must complete 25 credits in Core Courses and 15 credits in additional approved international electives. Students must complete each required core class with a grade of "C" or above.

International Studies (CERT)

The International Studies Certificate Program allows students to earn two years of foreign language credit while meeting the distribution requirements for the Associate in Arts degree.

Certificate Requirements

- Students must complete the General Education Requirements for the Associate in Arts degree as listed in the Clark College Catalog.
- Students must complete 25 credits of international core classes and an additional 15 credits of approved courses as part of the required 90 credits.

Required Core Courses (25 credits required)

World Language (15 credits required) 15 credits of & 200-level courses in one language (French, German, Japanese or Spanish)

Communication Skills (5 credits required)

CMST 216	INTERCULTURAL COMMUNICATION	5 cr.
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History or Political Sciences (5 credits required) choose one

HIST& 126	WORLD CIVILIZATIONS I	5 cr.
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or HIST& 127	WORLD CIVILIZATIONS II	5 cr.
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or HIST& 128	WORLD CIVILIZATIONS III	5 cr.
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or POLS& 203	INTERNATIONAL RELATIONS	5 cr.
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Approved International Electives (15 credits required)

ANTH& 206	INTRODUCTION TO CULTURAL ANTHROPOLOGY	5 cr.
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ART 225	ART HISTORY: ASIAN ART	5 cr.
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ART 226	TOPICS IN NON-WESTERN ART	1-9 cr.
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BIOL 101	ENVIRONMENTAL BIOLOGY	5 cr.
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ECON 110	INTRODUCTION TO THE GLOBAL ECONOMY	5 cr.
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ECON 111	THE ECONOMIES OF THE PACIFIC RIM	5 cr.
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ECON 112	THE ECONOMIES OF THE AMERICAS	5 cr.
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ECON 120	INTERNATIONAL ECONOMICS	3 cr.
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ENGL 261	WORLD LITERATURE	3 cr.
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or ENGL 262	WORLD LITERATURE	3 cr.
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ENGL 266	BRITISH LITERATURE	3 cr.
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GEOG 107	ECONOMIC GEOGRAPHY	5 cr.
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or ECON 107	ECONOMIC GEOGRAPHY	5 cr.
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HIST 221	EAST ASIAN HISTORY	5 cr.
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HIST 231	HISTORY OF GENOCIDE	3 cr.
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HIST 253	WOMEN IN HISTORY-INDUST AGE TO MODERN TIMES	3 cr.
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HIST 275	AFRICAN-AMERICAN HISTORY	5 cr.
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HIST 285	HISTORY OF LATIN AMERICA	5 cr.
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HLTH 210	MULTICULTURAL HEALTH	2 cr.
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HUM& 101	INTRO TO HUMANITIES	5 cr.
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JAPN 171	JAPANESE SOCIETY	3 cr.
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MUSC 117	MUSIC HISTORY: CLASSICAL/ROMANTIC	5 cr.
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MUSC 127	WORLD FOLK MUSIC	3 cr.
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or PHIL 117	INTRODUCTION TO LATE MODERN PHILOSOPHY	5 cr.
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POLS 151	MODEL UNITED NATIONS	2 cr.
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POLS 152	MODEL UNITED NATIONS	2 cr.
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POLS 153	MODEL UNITED NATIONS	2 cr.
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POLS 161	WORLD WITHOUT WAR	3 cr.
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POLS 220	THE GEOPOLITICS OF THE MIDDLE EAST	5 cr.
POLS 221	THE GEOPOLITICS OF AFRICA	5 cr.
POLS 222	THE GEOPOLITICS OF CHINA, JAPAN & EAST ASIA	5 cr.
POLS 223	THE GEOPOLITICS OF SOUTH AND CENTRAL ASIA	5 cr.
WS 201	WOMEN AROUND THE WORLD	3 cr.

Journalism (Area of Study)

Journalism offers more opportunities to meet interesting people than just about any other career. At the same time, journalism provides experiences that can be useful in many other fields: technical writing, law, politics, publishing, and public relations.

Students interested in pursuing a career in journalism should take Clark's basic sequence of news writing and editing courses and should work on the student newspaper, *The Independent*.

Several paid positions are available each year for student editors; expertise in computer graphics is desirable.

In addition to Clark's journalism courses, students should take a variety of courses that offer a broad general education and prepare them to transfer to a four-year school offering a degree in journalism or a related field. CMST& 102 offers a foundation for understanding how the media function in our society and is highly recommended. ENGL& 101, 102 and ENGL 103 will improve the ability to write clearly and do documented research accurately. Courses in the social sciences (particularly political science), history, literature, and science will provide a background for accurate reporting and the interpretation of data.

Students should make every effort to develop relevant computer skills while at the community college. These skills include word processing, electronic publishing, computer graphics, and the Internet.

Because course requirements vary at each institution, students interested in pursuing a four-year degree in Journalism should work with advisors at Clark and their transfer institution to develop a course of study.

Journalism courses typically transfer to four-year institutions. However, students should contact their transfer institution to clarify each course's transferability.

Machining Technology

The machinist's craft is basic to all American industrial production. It is the machinist's task to interpret the engineer's drawings in order to fabricate new machines and products.

Machinists operate various types of material-removing equipment such as lathes, milling machines, grinders, and computerized numerical control (CNC) machines. Some machinists specialize in the operation of one type of machine while others work in a shop where they are required to perform equally well on several different machines.

Clark College's program offers instruction in numerous machine processes including the set-up and operation of the engine lathe, surface grinders, vertical mill, CNC lathes, EDM and CNC milling machines.

All shop theory subjects have a direct bearing on the student's skill, safety, and attitude. In addition to shop theory and practice, the student studies math, blueprint reading, metallurgy, safety, and computer-aided manufacturing (CAM) programming.

MasterCAM programming classes teach basic CAM programming for mills, lathe, EDM, etc. The basic CNC class involves writing programs and learning to safely operate the HAAS CNC mills.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Machining Technology (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

MACH 111	BASIC GENERAL MACHINING PROCESSES	5 cr.
MACH 112	BASIC ENGINE LATHE PROCESSES I	5 cr.
MACH 113	BASIC VERTICAL MILLING PROCESSES I	5 cr.
MACH 121	BASIC SURFACE GRINDER PROCESSES I	5 cr.
MACH 122	BASIC ENGINE LATHE PROCESSES II	5 cr.
MACH 123	BASIC VERTICAL MILLING PROCESSES II	5 cr.
MACH 131	BASIC SURFACE GRINDER PROCESSES II	5 cr.
MACH 132	BASIC ENGINE LATHE PROCESSES III	5 cr.
MACH 133	BASIC VERTICAL MILLING PROCESSES III	5 cr.
MACH 211	ADVANCED SURFACE GRINDER PROCESSES III	5 cr.
MACH 212	ADVANCED ENGINE LATHE PROCESSES IV	5 cr.
MACH 213	ADVANCED CNC MILLING SETUP AND OPERATION	5 cr.
MACH 221	SURFACE GRINDER AND PROCESSES II	5 cr.
MACH 222	CNC LATHE SETUP AND OPERATION	5 cr.
MACH 223	CNC MILL MASTER CAM PROGRAMMING AND MACHINING	5 cr.
MACH 231	ADVANCED EDM PROCESSES	5 cr.
MACH 232	ADVANCED CNC LATHE PROGRAMMING	5 cr.
MACH 233	ADVANCED MILLING 3D PROGRAMMING & MACHINING	5 cr.

Related Required Classes

MACH 106	MECHANICAL BLUEPRINT READING	4 cr.
MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 107

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Demonstrate compliance of all machine shop safety regulations.
- Interpret blueprints and perform inspection of machined parts.
- Perform entry-level skills for setup and operation of manual machines.
- Perform entry-level skills to program, operate, and set up CNC machine tools.

- Communicate and interact in a team/group environment to perform multiple tasks in a professional and ethical manner.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Machining Technology (AAS)

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Major Area Requirements

MACH 111	BASIC GENERAL MACHINING PROCESSES	5 cr.
MACH 112	BASIC ENGINE LATHE PROCESSES I	5 cr.
MACH 113	BASIC VERTICAL MILLING PROCESSES I	5 cr.
MACH 121	BASIC SURFACE GRINDER PROCESSES I	5 cr.
MACH 122	BASIC ENGINE LATHE PROCESSES II	5 cr.
MACH 123	BASIC VERTICAL MILLING PROCESSES II	5 cr.
MACH 131	BASIC SURFACE GRINDER PROCESSES II	5 cr.
MACH 132	BASIC ENGINE LATHE PROCESSES III	5 cr.
MACH 133	BASIC VERTICAL MILLING PROCESSES III	5 cr.
MACH 211	ADVANCED SURFACE GRINDER PROCESSES III	5 cr.
MACH 212	ADVANCED ENGINE LATHE PROCESSES IV	5 cr.
MACH 213	ADVANCED CNC MILLING SETUP AND OPERATION	5 cr.
MACH 221	SURFACE GRINDER AND PROCESSES II	5 cr.
MACH 222	CNC LATHE SETUP AND OPERATION	5 cr.
MACH 223	CNC MILL MASTER CAM PROGRAMMING AND MACHINING	5 cr.
MACH 231	ADVANCED EDM PROCESSES	5 cr.
MACH 232	ADVANCED CNC LATHE PROGRAMMING	5 cr.
MACH 233	ADVANCED MILLING 3D PROGRAMMING & MACHINING	5 cr.

Related Required Classes

MACH 106	MECHANICAL BLUEPRINT READING	4 cr.
MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 122

Program Outcomes

- Demonstrate compliance of all machine shop safety regulations.
- Interpret blueprints and perform inspection of machined parts.
- Perform entry-level skills for setup and operation of manual machines.
- Perform entry-level skills to program, operate, and set up CNC machine tools.
- Communicate and interact in a team/group environment to perform multiple tasks in a professional and ethical manner.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Machining Technology (AAT)

General Education Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Major Area Requirements

MACH 111	BASIC GENERAL MACHINING PROCESSES	5 cr.
MACH 112	BASIC ENGINE LATHE PROCESSES I	5 cr.
MACH 113	BASIC VERTICAL MILLING PROCESSES I	5 cr.
MACH 121	BASIC SURFACE GRINDER PROCESSES I	5 cr.
MACH 122	BASIC ENGINE LATHE PROCESSES II	5 cr.
MACH 123	BASIC VERTICAL MILLING PROCESSES II	5 cr.
MACH 131	BASIC SURFACE GRINDER PROCESSES II	5 cr.

MACH 132	BASIC ENGINE LATHE PROCESSES III	5 cr.
MACH 133	BASIC VERTICAL MILLING PROCESSES III	5 cr.
MACH 211	ADVANCED SURFACE GRINDER PROCESSES III	5 cr.
MACH 212	ADVANCED ENGINE LATHE PROCESSES IV	5 cr.
MACH 213	ADVANCED CNC MILLING SETUP AND OPERATION	5 cr.
MACH 221	SURFACE GRINDER AND PROCESSES II	5 cr.
MACH 222	CNC LATHE SETUP AND OPERATION	5 cr.
MACH 223	CNC MILL MASTER CAM PROGRAMMING AND MACHINING	5 cr.
MACH 231	ADVANCED EDM PROCESSES	5 cr.
MACH 232	ADVANCED CNC LATHE PROGRAMMING	5 cr.
MACH 233	ADVANCED MILLING 3D PROGRAMMING & MACHINING	5 cr.

Related Required Classes

MACH 106	MECHANICAL BLUEPRINT READING	4 cr.
MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.
MATH 085	INDUSTRIAL MATHEMATICS	5 cr.

Total Required Credits: 118

Program Outcomes

- Demonstrate compliance of all machine shop safety regulations.
- Interpret blueprints and perform inspection of machined parts.
- Perform entry-level skills for setup and operation of manual machines.
- Perform entry-level skills to program, operate, and set up CNC machine tools.
- Communicate and interact in a team/group environment to perform multiple tasks in a professional and ethical manner.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Math Education

The mathematics program at Clark College prepares students for successful study at four-year colleges and universities. At the university level, the student may prepare for a career in industry, government, or teaching. Students who intend to enter the job market before graduate school should have exposure to the natural, social, and applied sciences.

A variety of resources are available which help students with differing learning styles understand mathematical concepts. At Clark, computers, graphing calculators and other technology are integrated into classroom teaching and research.

The math department maintains a Web page that provides information about faculty members, course descriptions

and online general advising for selecting a math course. Advice to help students succeed in math courses, along with instructional materials for some math classes, can be found on the website.

The Math Help Session is staffed 25-30 hours each week by department instructors to assist students who drop by for individual help with homework or understanding math concepts. New evening hours have also been added for night students at the Help Session.

Students who need to brush up on basic math skills will find classes in both the math and developmental education departments that prepare them for success before tackling college-level coursework. Single-credit classes to learn to use graphing calculators and for overcoming math anxiety are also offered.

Math Education - DTA/MRP (AA)

This pathway is applicable to students planning to prepare for math education majors at the secondary level at universities in Washington. Students need to make early contact with their potential transfer institutions regarding the specific course choices in each area of the agreement where options are listed. Students also need to check with their potential transfer institutions regarding the requirement for overall minimum GPA, a higher GPA in a selected subset of courses, or a specific minimum grade in one or more courses such as math or English.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework, and
- As of Fall 2011, Clark requires a course in Oral Communication, and
- Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic DTA Requirements

A. Basic Requirements

1. Communication Skills	10 cr.
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2. Quantitative/Symbolic Reasoning Requirements	5 cr.
Intermediate algebra proficiency is required.	

B. Distribution Requirements

1. Humanities	15 cr.
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2. Social Sciences	15 cr.
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3. Natural Sciences	3 cr.
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C. Major Requirements

1. Math courses	
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2. Education courses	
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3. Elective Courses	
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MRP Requirements

A. Basic Requirements

1. English Composition	10 cr.
2. First-quarter Calculus	5 cr.
Intermediate algebra proficiency is required.	

B. Distribution Requirements

1. Humanities

Introductory Speech and 10 credits of other humanities

Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

2. Social Sciences **15 cr.**

Intro to Psychology (5 cr.)
Other social sciences (10 cr.)

3. Natural Sciences **15 cr.**

2nd-quarter calculus
10 credits physical, biological, and/or earth science, including at least one lab course

C. Major Requirements

1. Math courses

3rd and 4th-quarter calculus
Linear Algebra

2. Education Courses

Field Experience/Intro to Education

Clark College Equivalents

A. Basic Requirements

1. Communication Skills

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

2. Quantitative/Symbolic Reasoning Requirements

MATH& 151	CALCULUS I	5 cr.
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B. Distribution Requirements

1. Humanities

CMST& 220	PUBLIC SPEAKING	Fulfills oral communication requirement	5 cr.
10 other credits of humanities meeting the stipulations for the DTA			

2. Social Sciences

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
10 credits of social science (maximum of 5 cr. additional psychology)		

3. Natural Sciences

MATH& 152	CALCULUS II	5 cr.
10 credits of natural science course work, including one lab, as defined by Clark College		

C. Major Requirements

1. Math Courses

MATH& 153	CALCULUS III	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
MATH& 254	CALCULUS IV	5 cr.

2. Education Courses

EDUC& 201	INTRODUCTION TO EDUCATION	3 cr.
EDUC 210	INTRODUCTORY FIELD EXPERIENCE	3 cr.

D. Electives

1. Elective Courses

9 credits of electives as defined under MRP Requirements/ C. Major Requirements /3. Elective Courses

Total Required Credits: 90

Mathematics (Area of Study)

Advances in science, technology, social science, business, industry, and government are dependent upon precise analysis and the extraction of information from large quantities of data. Environmental problems, for example, require careful analysis by persons with skills in mathematics, computer science, biology, geology, physics, and business.

The mathematics program at Clark College prepares students for successful study at four-year colleges and universities. At the university level, the student may prepare for a career in industry, government, or teaching. Students who intend to enter the job market before graduate school should have exposure to the natural, social, and applied sciences.

A variety of resources are available which help students with differing learning styles understand mathematical concepts. At Clark, computers, graphing calculators and other technology are integrated into classroom teaching.

The math department maintains a Web page that provides information about faculty members, course descriptions and online general advising for selecting a math course. Advice to help students succeed in math courses, along with instructional materials for some math classes, can be found on the website.

The math department staffs several help facilities to assist students on a drop-in basis. Assistance is provided by faculty and trained helpers.

Students who need to brush up on basic math skills will find classes in both the math and developmental education departments that prepare them for success before tackling college-level coursework.

General - Mathematics (suggested) (AA)

This is a suggested program for the first two years of major study in Mathematics. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.

Quantitative Skills (5 credits required)

MATH& 151	CALCULUS I	5 cr.
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Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS	3 cr.
or HPE 266	MIND BODY HEALTH	3 cr.

Oral Communications (5 credits required)

CMST& 220	PUBLIC SPEAKING	5 cr.
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Humanities (15 credits required)

PHIL& 106	INTRODUCTION TO LOGIC	5 cr.
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Social Sciences (15 credits required)		
ECON& 201	MICRO ECONOMICS	5 cr.
or ECON& 202	MACRO ECONOMICS	5 cr.
Natural Sciences (15 credits required)		
PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.

Elective Requirements

MATH& 152	CALCULUS II	5 cr.
MATH& 153	CALCULUS III	5 cr.
MATH 205	DISCRETE MATHEMATICS	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
MATH& 254	CALCULUS IV	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.

Pre-100 Classes Required

PHYS 094	PHYSICS CALCULATIONS	1 cr.
PHYS 095	PHYSICS CALCULATIONS	1 cr.
PHYS 096	PHYSICS CALCULATIONS	1 cr.

Total Required Credits: 106

Mechanical, Civil & Aeronautical Engineering

Engineering is a profession where you are challenged to develop creative solutions to problems related to every aspect of life, through the application of mathematical and scientific principles, experience, creativity, and common sense.

Mechanical engineering is a diverse discipline which can include robotics, consumer electronics, automotive, appliances, energy-sustainable and clean fuels, aerospace, medical innovations, amusement park rides, toys, and nanotechnology.

Civil engineers work in many areas essential to modern life such as construction, architecture, environmental engineering, power generation, public works and highway departments, or the federal government. Civil engineers are at the forefront of efforts to design inexpensive yet effective ways to ensure that people living in these regions have access to potable water.

Aeronautical engineering expertise is innovative in space exploration but also pioneering in other industries such as automobile manufacturing. Aerospace engineers are experts in aerodynamics, so some of them put their skills to use in making race cars go faster or golf balls fly further.

Mechanical, Civil & Aeronautical Engineering (AST2)

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These

degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has this difference from the Articulated Degree defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic Requirements

A. Basic Requirements

1. Communication Skills **5 cr.**

2. Mathematics **10 cr.**

Two courses at or above introductory calculus level. Third-quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an Engineering faculty advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

3. Physics **15 cr.**

Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

4. Chemistry with Laboratory **5 cr.**

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences **15 cr.**

C. Electives

1. Elective Courses

The remaining quarter credits should be planned with the help of an Engineering faculty advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards, as approved by the Engineering faculty advisor.

Articulated Degree Requirements

A. Basic Requirements

1. English Composition **5 cr.**

2. Mathematics

Calculus I, II, III - 15 credits

Differential Equations - 5 credits

Linear Algebra - 5 credits

3. Physics

Engineering Physics 1, 2, 3 + labs - 15 to 18 credits

4. Chemistry with Laboratory

General Chemistry 1, 2 + labs - 5 credits

5. Required Major Courses

- Statics - 5 credits
- Mechanics of Materials - 5 credits
- Dynamics - 5 credits

B. Distribution Requirements**1. Humanities/Fine Arts/English & Social Sciences** **15 cr.**

Minimum 15 quarter credits:

Minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science for a total of 15 credits.

C. Electives**1. Math/Engr Electives** **15 cr.**

Select 4 Electives (15-20 credits) as appropriate for intended major and intended baccalaureate institution. Requirements vary by school and program. See an Engineering faculty advisor for proper selection.

- Computer Programming - 4-5 credits
- Innovation in Design
- Calculus IV (Advanced or Multi-Variable Calculus)
- 3-D Visualization and CAD (Engineering Graphics)
- Technical Writing
- Thermodynamics
- Electrical Circuits
- Materials Science
- Applied Numerical Methods

Clark College Equivalents**A. Basic Requirements****1. Communication Skills**

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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2. Mathematics

MATH& 151	CALCULUS I	5 cr.
MATH& 152	CALCULUS II	5 cr.
MATH& 153	CALCULUS III	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.

3. Physics

PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.

4. Chemistry with Laboratory

CHEM& 141	GENERAL CHEMISTRY I	4 cr.
and CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CHEM& 142	GENERAL CHEMISTRY II	4 cr.
and CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.

5. Required Major Courses

ENGR& 214	STATICS	5 cr.
ENGR& 215	DYNAMICS	5 cr.
ENGR& 225	MECHANICS OF MATERIALS	5 cr.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

A course in Economics is recommended (ECON& 201 or 202).

PHIL& 106 is strongly recommended as the Humanities course.

C. Electives

1. Elective Courses Required at Clark:

MATH& 254	CALCULUS IV	5 cr.
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Notes

A. Basic Requirements

2. Mathematics

Clark requires concurrent enrollment or completion in MATH& 254 when taking MATH221.

MATH103 and MATH111 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met via COMPASS.

3. Physics

Clark requires concurrent enrollment in PHYS094, 095, and 096.

B. Distribution Requirements

1. Humanities

Courses taken must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GER's/GUR's) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

Total Required Credits: 102-110

Mechatronics

Mechatronics technology is a complex interdisciplinary field that combines the study of mechanics, electronics, automation and computers. Clark College's Mechatronics program proposal is designed with two certificate tracks, both of which lead to a corresponding AAT degree. Each of the certificate and degree tracks provides multiple stop out and entry points to accommodate various workforce demands.

Mechatronics-Mechanical Automation (AAT)

General Education Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Fault-Assisted Circuits for Electronics Training (FACET) Core

ELEC 101	DC FUNDAMENTALS	4 cr.
ELEC 102	AC FUNDAMENTALS	4 cr.
ELEC 121	SEMICONDUCTORS I	4 cr.

Major Area Requirements

MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
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MTX 105	BASIC HYDRAULICS	2 cr.
MTX 107	BASIC PNEUMATICS	2 cr.
MTX 110	ELECTRIC MOTOR CONTROL 1	4 cr.
MTX 113	ELECTRICAL POWER DISTRIBUTION	2 cr.
MTX 117	MECHATRONICS 1	2 cr.
MTX 120	MECHANICAL DRIVES 1	3 cr.
MTX 127	PIPING	2 cr.
MTX 130	PROGRAMMABLE LOGIC CONTROLLERS 1	4 cr.
MTX 150	MECHANICAL DRIVES 2	2 cr.
MTX 153	DC DRIVES	4 cr.
MTX 155	AC DRIVES	4 cr.
MTX 215	MECHATRONICS 2	3 cr.
MTX 217	MECHATRONICS 3	5 cr.
MTX 220	WORKPLACE ORGANIZATION AND PRACTICES	2 cr.
MTX 223	WORK TEAMS AND PRODUCT DESIGN	3 cr.
MTX 227	MECHANICAL DRIVES 3	4 cr.
MTX 230	LASER ALIGNMENT	2 cr.
MTX 250	ADVANCED PROGRAMMABLE LOGIC CONTROLLERS	4 cr.
MTX 255	ADVANCED HYDRAULICS	3 cr.
MTX 260	ADVANCED PNEUMATICS AND VACUUM	6 cr.
MTX 270	CAPSTONE	3 cr.
MTX 285	PROJECT MANAGEMENT AND LEAN MANUFACTURING	2 cr.
MTX 295	ORGANIZATIONAL ENTREPRENEURSHIP	3 cr.

Total Required Credits: 100

Program Outcomes

- Assimilate/interpret technical and nontechnical descriptions to form a solution.
- Design, operate, and troubleshoot automation processes and systems.
- Communicate with colleagues, supervisors, and clients, using written and verbal technical and/or nontechnical language.
- Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.
- Use computational skills to analyze physical parameters within automated processes and systems.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Mechatronics-Mechanical Automation (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Fault-Assisted Circuits for Electronics Training (FACET) Core

ELEC 101	DC FUNDAMENTALS	4 cr.
ELEC 102	AC FUNDAMENTALS	4 cr.
ELEC 121	SEMICONDUCTORS I	4 cr.

Major Area Requirements

MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	2 cr.
MTX 107	BASIC PNEUMATICS	2 cr.
MTX 110	ELECTRIC MOTOR CONTROL 1	4 cr.
MTX 113	ELECTRICAL POWER DISTRIBUTION	2 cr.
MTX 117	MECHATRONICS 1	2 cr.
MTX 120	MECHANICAL DRIVES 1	3 cr.
MTX 127	PIPING	2 cr.
MTX 130	PROGRAMMABLE LOGIC CONTROLLERS 1	4 cr.
MTX 150	MECHANICAL DRIVES 2	2 cr.
MTX 153	DC DRIVES	4 cr.
MTX 155	AC DRIVES	4 cr.
MTX 215	MECHATRONICS 2	3 cr.
MTX 217	MECHATRONICS 3	5 cr.
MTX 220	WORKPLACE ORGANIZATION AND PRACTICES	2 cr.
MTX 223	WORK TEAMS AND PRODUCT DESIGN	3 cr.
MTX 227	MECHANICAL DRIVES 3	4 cr.
MTX 230	LASER ALIGNMENT	2 cr.
MTX 250	ADVANCED PROGRAMMABLE LOGIC CONTROLLERS	4 cr.
MTX 255	ADVANCED HYDRAULICS	3 cr.
MTX 260	ADVANCED PNEUMATICS AND VACUUM	6 cr.
MTX 270	CAPSTONE	3 cr.
MTX 285	PROJECT MANAGEMENT AND LEAN MANUFACTURING	2 cr.
MTX 295	ORGANIZATIONAL ENTREPRENEURSHIP	3 cr.

Total Required Credits: 94

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the [Gainful Employment Program Information](#) page.

Program Outcomes

- Assimilate and interpret technical and nontechnical descriptions to form a solution.
- Design, operate, and troubleshoot automation processes and systems.
- Communicate with colleagues, supervisors, and clients, using written and verbal technical and/or nontechnical language.
- Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.
- Use computational skills to analyze physical parameters within automated processes and systems.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Mechatronics-Instrumentation & Control Automation (AAT)

General Education Requirements

Communication Skills (5 credits required)

Computational Skills (5 credits required)

Human Relations (5 credits required)

Fault-Assisted Circuits for Electronics Training (FACET) Core

ELEC 101	DC FUNDAMENTALS	4 cr.
ELEC 102	AC FUNDAMENTALS	4 cr.
ELEC 121	SEMICONDUCTORS I	4 cr.

Major Area Requirements

MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	2 cr.
MTX 107	BASIC PNEUMATICS	2 cr.
MTX 110	ELECTRIC MOTOR CONTROL 1	4 cr.
MTX 113	ELECTRICAL POWER DISTRIBUTION	2 cr.
MTX 117	MECHATRONICS 1	2 cr.
MTX 123	PICK AND PLACE ROBOT	2 cr.
MTX 125	SERVO ROBOT	3 cr.
MTX 130	PROGRAMMABLE LOGIC CONTROLLERS 1	4 cr.
MTX 135	INDUSTRIAL ELECTRICAL WIRING	3 cr.
MTX 165	ELECTRIC MOTOR CONTROL 2	4 cr.
MTX 205	FLOW PROCESS CONTROL	5 cr.
MTX 207	THERMAL PROCESS CONTROL	5 cr.

MTX 210	ELECTRO-FLUID POWER	4 cr.
MTX 215	MECHATRONICS 2	3 cr.
MTX 217	MECHATRONICS 3	5 cr.
MTX 220	WORKPLACE ORGANIZATION AND PRACTICES	2 cr.
MTX 223	WORK TEAMS AND PRODUCT DESIGN	3 cr.
MTX 225	SPEED CONTROL SYSTEMS	2 cr.
MTX 250	ADVANCED PROGRAMMABLE LOGIC CONTROLLERS	4 cr.
MTX 270	CAPSTONE	3 cr.
MTX 285	PROJECT MANAGEMENT AND LEAN MANUFACTURING	2 cr.
MTX 295	ORGANIZATIONAL ENTREPRENEURSHIP	3 cr.

Total Required Credits: 98

Program Outcomes

- Collect data based on sensory input and system performance to analyze and interpret process capabilities.
- Operate, measure, and modify software-driven industrial control systems.
- Communicate with colleagues, supervisors, clients, using written and verbal technical and/or nontechnical language.
- Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.
- Use computational skills to analyze physical parameters within automated processes and systems.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Mechatronics-Instrumentation & Control Automation (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Fault-Assisted Circuits for Electronics Training (FACET) Core

ELEC 101	DC FUNDAMENTALS	4 cr.
ELEC 102	AC FUNDAMENTALS	4 cr.
ELEC 121	SEMICONDUCTORS I	4 cr.

Major Area Requirements

MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	2 cr.

MTX 107	BASIC PNEUMATICS	2 cr.
MTX 110	ELECTRIC MOTOR CONTROL 1	4 cr.
MTX 113	ELECTRICAL POWER DISTRIBUTION	2 cr.
MTX 117	MECHATRONICS 1	2 cr.
MTX 123	PICK AND PLACE ROBOT	2 cr.
MTX 125	SERVO ROBOT	3 cr.
MTX 130	PROGRAMMABLE LOGIC CONTROLLERS 1	4 cr.
MTX 135	INDUSTRIAL ELECTRICAL WIRING	3 cr.
MTX 165	ELECTRIC MOTOR CONTROL 2	4 cr.
MTX 205	FLOW PROCESS CONTROL	5 cr.
MTX 207	THERMAL PROCESS CONTROL	5 cr.
MTX 210	ELECTRO-FLUID POWER	4 cr.
MTX 215	MECHATRONICS 2	3 cr.
MTX 217	MECHATRONICS 3	5 cr.
MTX 220	WORKPLACE ORGANIZATION AND PRACTICES	2 cr.
MTX 223	WORK TEAMS AND PRODUCT DESIGN	3 cr.
MTX 225	SPEED CONTROL SYSTEMS	2 cr.
MTX 250	ADVANCED PROGRAMMABLE LOGIC CONTROLLERS	4 cr.
MTX 270	CAPSTONE	3 cr.
MTX 285	PROJECT MANAGEMENT AND LEAN MANUFACTURING	2 cr.
MTX 295	ORGANIZATIONAL ENTREPRENEURSHIP	3 cr.

Total Required Credits: 92

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Assimilate and interpret technical and nontechnical descriptions to form a solution.
- Design, operate, and troubleshoot automation processes and systems.
- Communicate with colleagues, supervisors, and clients, using written and verbal technical and/or nontechnical language.
- Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.
- Use computational skills to analyze physical parameters within automated processes and systems.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Medical Radiography

Designed to fulfill the educational objectives established by the American Society of Radiologic Technologists and the competencies outlined by the American Registry of Radiologic Technologists, students graduating from this program receive an Associate of Applied Science degree in Medical Radiography and are employed in hospitals, clinics, doctors' offices, and outpatient medical centers. Successful completion of the registry examination results in national certification as a Registered Radiologic Technologist, RT (R) ARRT.

Upon program completion, and having passed the national boards administered by the American Registry of Radiologic Technologists (ARRT), students may choose to practice as entry-level technologists or continue their education to specialize in CT, MRI, ultrasound, and therapeutic radiation techniques or prepare for administration or teaching.

Application Guidelines

Applicants must be graduates of an accredited high school (or the equivalent). Students can apply to the Medical Radiography program any time; however, they will not be eligible for selection until all Preliminary Requirements are complete.

Candidates must:

- Complete the Clark College Application for Admission and Statement of Intent forms. Return to the Clark College Welcome Center with the non-refundable program application fees (subject to change). For the current fee amounts, please visit the Medical Radiography website at www.clark.edu/medicalradiography.
- Submit official college transcripts from ALL colleges attended (an evaluation of transfer credits will not be completed until all transcripts are received).
- Earn a COMPASS Reading exam score of 74 or higher or completion of READ 087 or equivalent with a 2.0 grade or higher.
- Earn a 2.0 grade or higher on all required courses.
- Complete program Preliminary Requirements with a GPA of 2.75 or higher for all non-science courses and a science GPA of 2.0 or higher for BIOL& 251, 252 & 253.
- BIOL& 251-Human A & P I (with lab)
- BIOL& 252-Human A & P II (with lab)
- BIOL& 253-Human A & P III (with lab)
- BMED 110-Medical Terminology I
- BMED 111-Medical Terminology II
- ENGL& 101-English Composition I
- MATH 093-Algebra III or MATH 095-Intermediate Algebra
- MRAD 101-Fundamentals of Medical Radiography

Final Program Admission

In preparing for entrance into the program, accepted students need to be aware of the following:

- The program requires a 40-hour per week commitment from students for classes and clinical rotations.
- Clinical facilities may require driving significant distances (with travel time up to 2.5 to 3 hours one way), so reliable transportation is an important consideration.
- Classes and/or clinicals may be offered at times other than weekday hours such as evenings and/or weekends.

Upon completion of preliminary requirements, an evaluation will be completed, and the applicant will be notified by the Credential Evaluations Office of additional procedures necessary for program consideration.

Final admission to the Medical Radiography program is based on competitive entry for a limited number of positions. Students are ranked by:

- Applicable GPA (for all required courses)
- Number of required courses completed
- Science GPA
- Washington Residency

All accepted Medical Radiography students will be required to attend an orientation session to secure their place in the class. Selected students will be sent information regarding the date, place, and time of the orientation. They will also need to submit a non-refundable \$200 deposit to reserve a position in the program.

Information regarding required Immunizations, physical exam, drug screening, health insurance, and criminal background check will be discussed in the **mandatory orientation** to the program.

Refer to the Clark College website for program entry requirements, program selection, deadlines, and application guidelines at www.clark.edu/medicalradiography.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dss. Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

Medical Radiography (AAS)

Preliminary Requirements

BIOL& 251	HUMAN A & P I *, **	4 cr.
BIOL& 252	HUMAN A & P II *, **	4 cr.
BIOL& 253	HUMAN A & P III *, **	4 cr.
BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
ENGL& 101	ENGLISH COMPOSITION I *	5 cr.
MATH 093	ALGEBRA III *, **	5 cr.
or MATH 095	INTERMEDIATE ALGEBRA *, **	5 cr.
MRAD 101	INTRODUCTION TO RADIOLOGIC TECHNOLOGY	3 cr.

Additional Requirement

CTEC 101	COMPUTING ESSENTIALS **	2 cr.
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FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.
HEOC 120	AIDS EDUCATION	1 cr.

General Education Requirements

Communication Skills (6 credits required)

ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
or ENGL& 102	ENGLISH COMPOSITION II	5 cr.

PE Activity (1 credit required)

Health course waived

Computational Skills (3 credits required)

Must be seven years current upon program entry.

MATH 093	ALGEBRA III (or higher or by test)	5 cr.
or MATH 095	INTERMEDIATE ALGEBRA (or higher or by test)	5 cr.

Human Relations (3 credits required)

Humanities (3 credits required)

HUM 180	BIOETHICS (strongly recommended)	3 cr.
CMST& 210	INTERPERSONAL COMMUNICATION (strongly recommended) ****	5 cr.

Social Sciences (3 credits required)

PSYC& 200	LIFESPAN PSYCHOLOGY ****	5 cr.
or PSYC& 100	GENERAL PSYCHOLOGY ****	5 cr.

Natural Sciences (3 credits required)

Must be seven years current upon program entry.

First Year Major Area Requirements

First Quarter

MRAD 011	RADIOGRAPHIC SKILL ENHANCEMENT LAB I	1 cr.
MRAD 102	INTRODUCTION TO PATIENT CARE (with lab)	5 cr.
MRAD 103	IMAGE PROCESSING	1 cr.
MRAD 104	RADIATION SAFETY AND RADIOBIOLOGY	2 cr.
MRAD 141	RADIOGRAPHIC POSITIONING I (with lab)	5 cr.

Second Quarter

MRAD 011	RADIOGRAPHIC SKILL ENHANCEMENT LAB I	1 cr.
MRAD 108	RADIATION PHYSICS I	3 cr.
MRAD 121	CLINICAL EXPERIENCE I	8 cr.
MRAD 142	RADIOGRAPHIC POSITIONING II (with lab)	5 cr.
MRAD 151	IMAGE EVALUATION I	2 cr.

Third Quarter

MRAD 011	RADIOGRAPHIC SKILL ENHANCEMENT LAB I	1 cr.
MRAD 109	RADIATION PHYSICS II	4 cr.
MRAD 122	CLINICAL EXPERIENCE II	6 cr.
MRAD 143	RADIOGRAPHIC POSITIONING III	5 cr.

Fourth Quarter

MRAD 012	RADIOGRAPHIC SKILL ENHANCEMENT LAB II ***	1-5 cr.
MRAD 123	CLINICAL EXPERIENCE III	8 cr.
MRAD 152	IMAGE EVALUATION II	1 cr.
MRAD 214	PHARMACOLOGY AND IV THERAPY (with lab)	3 cr.
MRAD 244	RADIOGRAPHIC POSITIONING IV (with lab)	3 cr.

Second Year Major Area Requirements**Fifth Quarter**

MRAD 012	RADIOGRAPHIC SKILL ENHANCEMENT LAB II ***	1-5 cr.
MRAD 153	IMAGE EVALUATION III	1 cr.
MRAD 216	RADIOGRAPHIC PATHOLOGY	3 cr.
MRAD 224	CLINICAL EXPERIENCE IV	8 cr.
MRAD 245	RADIOGRAPHIC POSITIONING V (with lab)	3 cr.

Sixth Quarter

MRAD 154	IMAGE EVALUATION IV	1 cr.
MRAD 225	CLINICAL EXPERIENCE V	8 cr.
MRAD 255	ADVANCED MODALITIES	1 cr.
MRAD 279	CROSS SECTIONAL ANATOMY FOR IMAGING PROFESSIONAL	3 cr.

Seventh Quarter

MRAD 226	CLINICAL EXPERIENCE VI	9 cr.
MRAD 251	RADIOGRAPHIC INFORMATION MANAGEMENT	2 cr.
MRAD 253	RADIOBIOLOGY	2 cr.

Eighth Quarter

MRAD 227	CLINICAL EXPERIENCE VII	12 cr.
MRAD 270	LEADERSHIP AND MANAGEMENT	1 cr.
MRAD 275	MEDICAL RADIOGRAPHY REVIEW	2 cr.

Total Required Credits: 168-170

**Course will satisfy General Education Requirement.*

***Must be seven years current upon program entry.*

**** Enroll in MRAD 012 for 1 credit during both the fourth and fifth quarter.*

*****Also fulfills Human Relations requirement.*

Program Progression - Once accepted into the Medical Radiography program all students must achieve a GPA of 2.0 or higher in all required courses and maintain a cumulative GPA of 2.0 or higher to progress from one quarter to the next.

Program Outcomes

- Be clinically competent: Apply positioning skills, demonstrate radiation protection and patient care.
- Demonstrate communication skills: Accurately explain procedures, listen attentively and apply age-appropriate communication.
- Utilize critical thinking skills: Perform non-routine exams, evaluate image quality and recognize proper procedures for emergency situations.
- Demonstrate professionalism: Ethical behavior, a positive attitude in clinical situations, and initiative.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Music (Area of Study)

The Music program at Clark College offers a two-year college experience of music theory, instrumental and vocal performance training, music appreciation, and music history classes. Classes are designed to prepare the music major for advanced studies at a four-year institution while providing the non-major with the skills and background to fully enjoy music as a cultural pursuit.

Career opportunities for those with musical interests and talent are available in a number of areas: music education, music marketing, theory and history, composition, and vocal or instrumental performance. Students with professional goals should consult with a faculty advisor to plan a program leading to an Associate in Arts degree.

Musical Opportunities

Instrumentalists and vocal musicians have the opportunity to fine tune their talents while developing a professional stage presence by performing in their choice of quality college groups:

- Orchestra
- Symphonic Band
- Jazz Band
- Women's Choir
- Concert Choir
- Brass & Wind Ensembles
- Vocal Jazz Ensemble
- Pep Band

Performing groups present concerts each quarter, at various locations on and off campus, often with musical groups from other schools or from the community. Performing ensembles have toured in Canada, Mexico, Japan, Korea, China, and Hawaii.

Each January, Clark music students also experience first-hand the many activities involved in producing a major musical event as the college hosts the annual Clark College Jazz Festival. More than 80 high school bands and vocal jazz choirs from throughout the Northwest and Canada come to the campus to compete in this nationally recognized event. Clark jazz musicians perform during the three-day event, and all participants have the opportunity to interact with the professional musicians and educators who come to Vancouver as guest performers and adjudicators for the festival.

Network Technology

Designed to meet the ever-changing needs of the IT (Information Technology) field, Clark's Network Technology programs include extensive hands-on, real-world scenario-based learning in planning, designing, implementing, maintaining, and troubleshooting small-to-large scale computer networks.

The Network Technology department provides in-demand training for careers as a Network Administrator, Network Engineer, and Network Support Specialist in all aspects of modern computer networks, including traditional data, video conference, Voice over Internet Protocol (VoIP) telephone, wireless networks, and network security.

We are a Cisco Network Academy authorized by Cisco Systems, a leader in the networking industry. The Network Technology department offers training towards obtaining several well-recognized industry certifications, including:

- Cisco CCNA
- Cisco CCNA Security
- Cisco CCNA Voice
- CompTIA A+ PC Technician
- CompTIA Network+
- CompTIA Server+
- Microsoft MCITP Server Administrator on Windows Server 2008
- Microsoft MCTS Windows Server 2008 Network Infrastructure
- Microsoft MCTS Windows Server 2008 Active Directory

Our various Network Technology programs are designed with entry points both for the student just starting a new career, as well as for the computer networking or telecommunications professional seeking to improve and update their skills and achieve industry certifications. Classes are offered at convenient times for working people: days, nights, weekends.

We invite you to visit our website for more information, contact us with your questions, and schedule a tour of our classroom and leading-edge lab facility. Email: dnet@clark.edu

Program Preparation

Math and English proficiency tests are required of all students before entry into the applied science degree program.

Students must complete all Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Cisco Network Technician (CA)

This program is designed for students who want to work as network administrators with local area network systems. Network administrators maintain network operations, conduct performance monitoring, network security, firewalls, VPNs, design networks, perform backup and recovery procedures, and perform troubleshooting.

Major Area Requirements

DNET 211	TELECOM 1: BASIC TELECOMMUNICATIONS	6 cr.
DNET 220	INTRO TO NETWORK SERVERS: WINDOWS AND LINUX	6 cr.
DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.

DNET 222	CISCO CCNA 2: ROUTING PROTOCOLS AND CONCEPTS	6 cr.
DNET 223	CISCO CCNA 3: LAN SWITCHING AND WIRELESS	6 cr.
DNET 224	CISCO CCNA 4: ACCESSING THE WAN	6 cr.

Total Required Credits: 36

Note: Students will be required to have access to the Internet to complete their coursework.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Implement telecommunications technologies.
- Demonstrate a functional understanding of network services using Linux and Windows Server.
- Implement Cisco routing, switching and WAN services.

Cisco Network Technologies (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

MATH& 107	MATH IN SOCIETY	5 cr.
or MATH 111	COLLEGE ALGEBRA	5 cr.

Human Relations (5 credits required)

MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
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Major Area Requirements

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
DNET 211	TELECOM 1: BASIC TELECOMMUNICATIONS	6 cr.
DNET 220	INTRO TO NETWORK SERVERS: WINDOWS AND LINUX	6 cr.
DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.
DNET 222	CISCO CCNA 2: ROUTING PROTOCOLS AND CONCEPTS	6 cr.
DNET 223	CISCO CCNA 3: LAN SWITCHING AND WIRELESS	6 cr.
DNET 224	CISCO CCNA 4: ACCESSING THE WAN	6 cr.
DNET 299	CAPSTONE EXPERIENCE	3 cr.

Program Specialty Area Requirements

Students must complete a minimum of 33 credits in specialty areas. Choose from the following list:

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 122	HTML FUNDAMENTALS	3 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 141	UNIX SYSTEM ADMINISTRATION	5 cr.
CTEC 230	INTRODUCTION TO NETWORK SECURITY	5 cr.
DNET 199	COOPERATIVE WORK EXPERIENCE	1-6 cr.
DNET 225	CISCO CCNA SECURITY	6 cr.

DNET 226	VOICE OVER IP	6 cr.
DNET 232	COMPTIA A+ COMPUTER SUPPORT TECHNICIAN	6 cr.
DNET 233	SERVER HARDWARE/SOFTWARE: SERVER+	6 cr.
DNET 234	MICROSOFT ACTIVE DIRECTORY	6 cr.
DNET 235	MICROSOFT NETWORK INFRASTRUCTURE	6 cr.
DNET 236	MICROSOFT SERVER ADMINISTRATOR	6 cr.
DNET 242	DATACENTER VIRTUALIZATION TECHNOLOGY	6 cr.

Total Required Credits: 90

Program Outcomes

- Implement telecommunications technologies.
- Demonstrate a functional understanding of network services using Linux and Windows Server.
- Implement Cisco routing, switching and WAN services.
- Successfully complete all criteria necessary to pass Cisco Certified Network Associate (CCNA) certification.
- Apply basic management skills to demonstrate an understanding of business management structure.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Microsoft Network Technologies (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

MATH& 107	MATH IN SOCIETY	5 cr.
or MATH 111	COLLEGE ALGEBRA	5 cr.

Human Relations (5 credits required)

MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
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Major Area Requirements

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
DNET 220	INTRO TO NETWORK SERVERS: WINDOWS AND LINUX	6 cr.
DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.
DNET 233	SERVER HARDWARE/SOFTWARE: SERVER+	6 cr.
DNET 234	MICROSOFT ACTIVE DIRECTORY	6 cr.
DNET 235	MICROSOFT NETWORK INFRASTRUCTURE	6 cr.

DNET 236	MICROSOFT SERVER ADMINISTRATOR	6 cr.
DNET 299	CAPSTONE EXPERIENCE	3 cr.

Program Specialty Area Requirements

Students must complete a minimum of 33 credits in specialty areas. Choose from the following list:

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 122	HTML FUNDAMENTALS	3 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 141	UNIX SYSTEM ADMINISTRATION	5 cr.
CTEC 180	INTRODUCTION TO ACCESS	3 cr.
CTEC 230	INTRODUCTION TO NETWORK SECURITY	5 cr.
DNET 199	COOPERATIVE WORK EXPERIENCE	1-6 cr.
DNET 222	CISCO CCNA 2: ROUTING PROTOCOLS AND CONCEPTS	6 cr.
DNET 223	CISCO CCNA 3: LAN SWITCHING AND WIRELESS	6 cr.
DNET 224	CISCO CCNA 4: ACCESSING THE WAN	6 cr.
DNET 225	CISCO CCNA SECURITY	6 cr.
DNET 226	VOICE OVER IP	6 cr.
DNET 232	COMPTIA A+ COMPUTER SUPPORT TECHNICIAN	6 cr.
DNET 242	DATACENTER VIRTUALIZATION TECHNOLOGY	6 cr.

Total Required Credits: 90

Program Outcomes

- Implement Windows Active Directory.
- Plan and deploy Windows network services.
- Troubleshoot server hardware using modern troubleshooting techniques.
- Apply basic management skills to demonstrate an understanding of business management structure.
- Plan a company's large-scale implementation of Windows Server, based on a variety of constraints or requirements.
- Successfully complete all criteria necessary to pass industry certifications working with Windows Server (software) and server hardware.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Microsoft Network Technician (CA)

This program is designed for students who want to work as systems administrators with local area network systems. Systems administrators install workstation and server software, set up user accounts and restrictions; install, define, and maintain system resources such as file systems and printers; maintain network operations; perform backup and recovery procedures, and perform troubleshooting.

Major Area Requirements

DNET 220	INTRO TO NETWORK SERVERS: WINDOWS AND LINUX	6 cr.
DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.
DNET 233	SERVER HARDWARE/SOFTWARE: SERVER+	6 cr.
DNET 234	MICROSOFT ACTIVE DIRECTORY	6 cr.
DNET 235	MICROSOFT NETWORK INFRASTRUCTURE	6 cr.
DNET 236	MICROSOFT SERVER ADMINISTRATOR	6 cr.

Total Required Credits: 36

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the [Gainful Employment Program Information page](#).

Program Outcomes

- Implement Windows Active Directory.
- Plan and deploy Windows network services.
- Troubleshoot server hardware using modern troubleshooting techniques.
- Plan a company's large-scale implementation of Windows Server, based on a variety of constraints or requirements.
- Successfully complete all criteria necessary to pass industry certifications working with Windows Server (software) and server hardware.

Datacenter Technician (CA)

This program is designed for students who want to work as datacenter technicians within enterprise datacenters and server co-location facilities. Datacenter technicians maintain network operations; conduct performance monitoring, install server operating systems (Linux, UNIX, and Microsoft), manage virtualized "cloud computing" environments, perform backup and recovery procedures, and perform troubleshooting.

Major Area Requirements

DNET 220	INTRO TO NETWORK SERVERS: WINDOWS AND LINUX	6 cr.
DNET 221	CISCO CCNA 1: NETWORK FUNDAMENTALS	6 cr.
DNET 222	CISCO CCNA 2: ROUTING PROTOCOLS AND CONCEPTS	6 cr.
DNET 223	CISCO CCNA 3: LAN SWITCHING AND WIRELESS	6 cr.
DNET 233	SERVER HARDWARE/SOFTWARE: SERVER+	6 cr.
DNET 242	DATACENTER VIRTUALIZATION TECHNOLOGY	6 cr.

Total Required Credits: 36

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the [Gainful Employment Program Information page](#).

Nursing

The registered nurse is a licensed health care professional able to work in hospitals, clinics, acute care, physicians' offices, emergency centers, long-term care facilities, and home health care agencies. Registered nurses work with patients from birth through old age in a variety of health care settings, including medical/surgical, obstetrics, mental health, long-term care, and in the community. They design care plans, perform patient assessments, administer medications, give injections, serve as advocates for patients, and refer patients to the proper resources. Critical-thinking and decision-making ability, as well as a life-long commitment to learning, are important assets in this demanding but rewarding profession.

Graduates of the Associate Degree Nursing program receive an Associate in Applied Science degree in Nursing, and are qualified to take the National Council Examination for licensure as a Registered Nurse. With additional credits, an Associate of Arts degree may be granted. (Students interested in transferring on to earn their Bachelor of Science in Nursing, please refer to the Clark College to WSU Vancouver Direct Transfer Agreement.)

Clark College's Associate Degree Nursing program is accredited by the National League for Nursing Accrediting Commission (NLNAC).

NLNAC

National League for Nursing Accrediting Commission
3343 Peachtree Rd NE, Suite 500
Atlanta, GA 30326
www.nlnac.org

Preliminary Requirements

To apply for the program, complete the Clark College Application for Admission and Statement of Intent forms. Return to the Clark College Welcome Center with the non-refundable program application fees (subject to change). For the current fee amounts, please visit the Nursing website at www.clark.edu/clarknursing.

Send all official college transcripts to the Credential Evaluations Office for complete transcript evaluation.

The following courses must be completed with a 3.0 applicable GPA (with at least a 2.0 in each program class) to qualify for selection to the Nursing program:

- CHEM& 121 Introduction to Chemistry (formerly CHEM 111)
- BIOL& 251L Human Anatomy & Physiology I, II, III
- BIOL& 252L (formerly BIOL 231, 232, 233)
- BIOL& 253L
- BIOL& 260 Microbiology (formerly BIOL 240)
- NUTR 103 Nutrition
- PSYC& 200 Lifespan Psychology (formerly PSYC 211)
- ENGL& 101 Composition 1 (formerly ENGL 101)
- ENGL& 102 Composition 2 (formerly ENGL 102)
- There is a seven-year (7) limit on all science/social science courses (numbered 1-7 above) at the time of program entry.
- The following courses must be completed with a 2.0 or higher prior to graduation:
 - Humanities Elective 3 credits
 - PE Activity 1 credit

Final Program Admission

Upon completion of preliminary requirements, an evaluation will be completed and the applicant will be notified by the Credential Evaluations Office of additional procedures necessary for program consideration.

Acceptance into the Nursing Program is limited and competitive. It is based on the total points accumulated in the criteria previously outlined (see "Calculate Your Nursing Points" on the Clark College Nursing website).

Mandatory Orientation

A mandatory orientation will be held for admitted students and invited alternate students. Attendance is required or the next eligible alternate student may be given the assigned placement in the program. Students will be informed of the orientation date, time and location.

Upon Acceptance

- Upon notification of acceptance, students must pay a non-refundable \$200 deposit within the deadline stated in the acceptance letter.
- Immediately notify the Clark College Nursing Program office at 360-992-6075 if for any reason your acceptance to the Clark College Nursing Program decision changes.

Physical Exam and Proof of Immunizations

Accepted students and invited alternate students must submit proof of a physical exam and proof of immunizations by the stated deadline or their space will be given to the next eligible alternate. For a list of immunizations, please visit the website at www.clark.edu/clarknursing.

Criminal Background Check

All accepted students are required to complete and pass the FBI, Washington State Patrol/Oregon State Patrol (depending on state of residence) criminal background check process. The criminal background check requires a fee and the applicant's social security number.

Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dss. Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

Nursing (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.

Physical Education (1 credit required)

Health course waived

Computational Skills (3 credits required)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.
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Natural Sciences (3 credits required)

CHEM& 121	INTRO TO CHEMISTRY: PRE-HEALTH	5 cr.
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Additional Program Prerequisites

BIOL& 251	HUMAN A & P I	4 cr.
BIOL& 252	HUMAN A & P II	4 cr.
BIOL& 253	HUMAN A & P III	4 cr.

BIOL& 260	MICROBIOLOGY	5 cr.
NUTR 103	GENERAL NUTRITION	3 cr.

Major Area Requirements

NURS 110	FOUNDATIONS OF PROFESSIONAL NURSING	3 cr.
NURS 111	FOUNDATIONS OF NURSING PRACTICE	4 cr.
NURS 113	PROFESSIONAL NURSING SKILLS I	2 cr.
NURS 114	NURSING SKILLS PRACTICE I	1 cr.
NURS 115	NURSING COMPETENCIES AND SIMULATION	2 cr.
NURS 120	NURSING CONCEPTS I	2 cr.
NURS 121	NURSING CONCEPTS IN PRACTICE I	4 cr.
NURS 125	NURSING COMPETENCIES AND SIMULATION	2 cr.
NURS 126	PROFESSIONAL NURSING SKILLS II	1 cr.
NURS 127	NURSING SKILLS PRACTICE II	1 cr.
NURS 130	FAMILY-CENTERED NURSING	2 cr.
NURS 131	NURSING CARE OF THE EMERGING FAMILY	4 cr.
NURS 132	NURSING CARE OF THE CHILD	4 cr.
NURS 133	FAMILY CENTERED NURSING SKILLS	1 cr.
NURS 210	NURSING CONCEPTS II	3 cr.
NURS 211	NURSING CONCEPTS IN PRACTICE II	8 cr.
NURS 212	NURSING SKILLS PRACTICE III	1 cr.
NURS 220	NURSING CONCEPTS III	2 cr.
NURS 221	NURSING CONCEPTS IN PRACTICE III	4 cr.
NURS 222	MENTAL HEALTH CONCEPTS	2 cr.
NURS 223	MENTAL HEALTH IN PRACTICE	4 cr.
NURS 230	PROFESSIONAL LEADERSHIP	2 cr.
NURS 231	PROFESSIONAL LEADERSHIP IN PRACTICE	8 cr.
NURS 232	PROFESSIONAL ROLE IN THE COMMUNITY	1 cr.

Total Required Credits: 118

Program Progression

- In order to progress from one course or quarter to the next after beginning the Nursing program, student must achieve a grade of 2.0 or higher in all required courses and maintain a cumulative GPA of 2.0 or higher.

Program Outcomes

- Knowledge: Integrate relevant theoretical and practical knowledge.
- Clinical Judgment: Demonstrate effective problem-solving and decision-making.
- Caring: Integrate principles of diversity, holism, stewardship, dignity, and respect to reflect an environment of caring.
- Teamwork and Interprofessional Collaboration: Model open communication, mutual respect and shared decision-making.
- Professionalism: Demonstrate personal accountability, ethical practices and continuing competence in nursing.

- Patient Safety: Minimize risk of harm to patients and providers through both clinical system effectiveness and individual performance.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Pre-Nursing -DTA/ MRP (AA)

This pathway is applicable to students planning to prepare for upper-division Bachelor of Science, Nursing (entry-to-practice/basic BSN pathway) by completing a broad selection of academic courses. Many students transfer to the BSN program after completing the Associate Degree Nursing (ADN) program (RN-to-BSN pathway); however, this agreement is not applicable to and does not alter those ADN-to-BSN articulation agreements.

Students planning a career pathway in Nursing should seek advisement from Clark College's Advising Department early. Besides this degree, Clark has several consortial agreements with regard to degrees in Nursing.

This pathway streamlines preparation for the basic BSN pathway across the state. It does not, however, address the issue of significantly inadequate capacity (faculty, clinical opportunities, etc.) at the BSN level relative to workforce needs or current student interest. Due to high interest and limited space in BSN programs, admission to all BSN programs is highly competitive, with many qualified applicants finding themselves on waiting lists for admission.

This document represents an agreement between the following baccalaureate institutions offering an entry-to-practice/basic BSN program and the community and technical colleges system. Baccalaureate institutions party to this agreement include: University of Washington, Seattle; Washington State University; Northwest University; Seattle University; Seattle Pacific University; Pacific Lutheran University; and Walla Walla University. The Washington State University Intercollegiate College of Nursing (WSU-ICN) is a consortium whose members include Eastern Washington University, Gonzaga, and Whitworth. Associate degree transfers to WSU-ICN are admitted through WSU, but not through the other consortium institutions. EWU participated in the development of this agreement.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework, and
- Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog to view a printable PDF of this document.

Generic DTA Requirements

A. Basic Requirements

1. **Communication Skills** 10 cr.

2. **Quantitative/Symbolic Reasoning Requirements** 5 cr.
Intermediate algebra proficiency is required.

B. Distribution Requirements

1. **Humanities** 15 cr.

2. **Social Sciences** 15 cr.

3. **Natural Sciences**

C. Electives

MRP Requirements

A. Basic Requirements

1. **English Composition** 10 cr.

2. **Quantitative/Symbolic Reasoning Requirement** 5 cr.
5 quarter credits Statistics (a course that includes descriptive and inferential statistics)
Intermediate algebra proficiency is required.

B. Distribution Requirements

1. **Humanities** 15 cr.
5 quarter credits of Public Speaking
10 quarter credits of other Humanities
Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area,
5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes
are allowed.

2. **Social Sciences** 15 cr.
• 5 quarter credits, Introduction to Psychology
• 5 quarter credits, Human Development across the Life Span
• 5 credits from the Sociology discipline

3. **Natural Sciences**
35 credits with at least 25 credits lab-based:
• 5 quarter credits General Biology, the course prerequisite to Anatomy/Physiology
• 10 quarter credits Anatomy and Physiology with lab
• 5 quarter credits Inorganic Chemistry with lab
• 5 quarter credits Organic/Biochemistry with lab (when Organic + Biochemistry are separate courses,
both are required)
• 5 quarter credits Microbiology with lab
• 5 quarter credits Human Nutrition

C. Electives

Up to 10 additional quarter credits of which a maximum of 5 credits may be in college-level courses
as defined by the community college, and the remainder shall be fully transferable as defined by the
receiving institution.

Clark College Equivalents

A. Basic Requirements

1. Communication Skills

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.

2. Quantitative/Symbolic Reasoning Requirement

MATH 203	DESCRIPTIVE STATISTICS	3 cr.
and MATH 204	INFERENCE STATISTICS	3 cr.
or BUS 203	DESCRIPTIVE STATISTICS	3 cr.
and BUS 204	INFERENCE STATISTICS	3 cr.

B. Distribution Requirements

1. Humanities

CMST& 220	PUBLIC SPEAKING	Fulfills oral communication requirement	5 cr.
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10 quarter credits of other Humanities, 5 of which can be CMST

2. Social Sciences

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.

5 credits in Sociology

3. Natural Sciences

BIOL& 100	SURVEY OF BIOLOGY	5 cr.
or BIOL 164	HUMAN BIOLOGY	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB	1 cr.
BIOL& 251	HUMAN A & P I	4 cr.
BIOL& 252	HUMAN A & P II	4 cr.
BIOL& 253	HUMAN A & P III	4 cr.
BIOL& 260	MICROBIOLOGY	5 cr.
CHEM& 121	INTRO TO CHEMISTRY: PRE-HEALTH	5 cr.
CHEM& 131	INTRO TO ORGANIC/BIOCHEM	5 cr.
NUTR 103	GENERAL NUTRITION *	3 cr.

C. Electives

1. Elective Courses

Up to 10 additional quarter credits of which a maximum of 5 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution.

Students need to consult with the transfer institution to determine which course is "fully transferable."

Notes

A. Basic Requirements

1. Communication Skills

ENGL& 102 is REQUIRED at Northwest University and Walla Walla University.

2. Quantitative/Symbolic Reasoning Requirement

UW Seattle and Seattle University require 10 credits in quantitative/symbolic reasoning with the additional class in college algebra or pre-calculus (at UW Seattle, a class in Logic also serves for the additional class).

Students should make sure that the receiving institution will accept the business statistics sequence prior to starting.

B. Distribution Requirements

1. Humanities

In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their nursing curriculum.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). Credits in the humanities distribution area provide one opportunity for such a curriculum. See the humanities choices in the WSU "Diversity Course Identification Guidelines" for possible selection or choose courses that include minority, non-Western, ethnic or other "area" studies.

2. Social Sciences

Northwest University requires Cultural Anthropology and does not accept a course in the sociology discipline as a substitute. Students may be admitted to the BSN without Cultural Anthropology if they agree to complete the course at NU in the summer prior to the junior year.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The credits in sociology provide one opportunity for such a curriculum. See the sociology choices in the WSU "Diversity Course Identification Guidelines" for possible selection or choose courses that include minority, non-Western, ethnic or other "area" studies.

3. Natural Sciences

Introductory survey courses or review courses do not meet the content level expectations for these natural science requirements.

Northwest University requires 2 credits of Genetics as well. Students may be admitted to the BSN without Genetics if they agree to complete the course at NU in the summer prior to the junior year.

At the time of application, when some of the coursework may not yet be completed, UW Seattle requires a minimum GPA of 3.0 for 3 out of the 7 courses or 2.8 for 4 out of the 7.

*Students need to be aware that Clark College's nutrition class is only 3 credits, not the required 5 credits.

C. Electives

1. Elective Courses

See notes under humanities, social science and natural science.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The elective credits provide one opportunity for such a curriculum.

See the choices in the WSU "Diversity Course Identification Guidelines" for possible course selection or select courses that include minority, non-Western, ethnic or other "area" studies.

Total Required Credits: 90

Nursing - Transfer to WSU Vancouver (AA)

Students who complete the Nursing program at Clark College may choose to continue on to earn a Bachelor of Science in Nursing at Washington State University Vancouver. The following courses are required to meet graduation requirements for the Clark College/WSU Vancouver Direct Transfer Agreement (Associate in Arts).

For information regarding the application process, preliminary requirements, and final admission process, please visit the Clark College Nursing website at www.clark.edu/clarknursing.

General Education Requirements

Communication Skills (10 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL& 102	ENGLISH COMPOSITION II	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.

Quantitative Skills (5 credits required)

MATH 203	DESCRIPTIVE STATISTICS	3 cr.
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or BUS 203	DESCRIPTIVE STATISTICS	3 cr.
MATH 204	INFERENCE STATISTICS	3 cr.
or BUS 204	INFERENCE STATISTICS	3 cr.
Physical Education Activity (1 credit required)		
Health course waived		
Oral Communications (5 credits required)*		
Humanities (15 credits required)		
Social Sciences (15 credits required)		
PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
PSYC& 200	LIFESPAN PSYCHOLOGY	5 cr.
SOC& 101	INTRO TO SOCIOLOGY	5 cr.
Natural Sciences (15 credits required)		
BIOL& 251	HUMAN A & P I	4 cr.
BIOL& 252	HUMAN A & P II	4 cr.
BIOL& 253	HUMAN A & P III	4 cr.
BIOL& 260	MICROBIOLOGY	5 cr.
CHEM& 121	INTRO TO CHEMISTRY: PRE-HEALTH	5 cr.
NUTR 103	GENERAL NUTRITION	3 cr.

Major Area Requirements

NURS 110	FOUNDATIONS OF PROFESSIONAL NURSING	3 cr.
NURS 111	FOUNDATIONS OF NURSING PRACTICE	4 cr.
NURS 113	PROFESSIONAL NURSING SKILLS I	2 cr.
NURS 114	NURSING SKILLS PRACTICE I	1 cr.
NURS 115	NURSING COMPETENCIES AND SIMULATION	2 cr.
NURS 120	NURSING CONCEPTS I	2 cr.
NURS 121	NURSING CONCEPTS IN PRACTICE I	4 cr.
NURS 125	NURSING COMPETENCIES AND SIMULATION	2 cr.
NURS 126	PROFESSIONAL NURSING SKILLS II	1 cr.
NURS 127	NURSING SKILLS PRACTICE II	1 cr.
NURS 130	FAMILY-CENTERED NURSING	2 cr.
NURS 131	NURSING CARE OF THE EMERGING FAMILY	4 cr.
NURS 132	NURSING CARE OF THE CHILD	4 cr.
NURS 133	FAMILY CENTERED NURSING SKILLS	1 cr.
NURS 210	NURSING CONCEPTS II	3 cr.
NURS 211	NURSING CONCEPTS IN PRACTICE II	8 cr.
NURS 212	NURSING SKILLS PRACTICE III	1 cr.
NURS 220	NURSING CONCEPTS III	2 cr.
NURS 221	NURSING CONCEPTS IN PRACTICE III	4 cr.
NURS 222	MENTAL HEALTH CONCEPTS	2 cr.

NURS 223	MENTAL HEALTH IN PRACTICE	4 cr.
NURS 230	PROFESSIONAL LEADERSHIP	2 cr.
NURS 231	PROFESSIONAL LEADERSHIP IN PRACTICE	8 cr.
NURS 232	PROFESSIONAL ROLE IN THE COMMUNITY	1 cr.

Total Required Credits: 137

**Can apply to Humanities*

Program Outcomes

- Knowledge: Integrate relevant theoretical and practical knowledge.
- Clinical Judgment: Demonstrate effective problem-solving and decision-making.
- Caring: Integrate principles of diversity, holism, stewardship, dignity, and respect to reflect an environment of caring.
- Teamwork and Interprofessional Collaboration: Model open communication, mutual respect and shared decision-making.
- Professionalism: Demonstrate personal accountability, ethical practices and continuing competence in nursing.
- Patient Safety: Minimize risk of harm to patients and providers through both clinical system effectiveness and individual performance.

Nursing Assistant Certified

Nursing Assistant Certified (NAC) (I-BEST) (CERT)

The **Nursing Assistant Certificate** program provides instruction in basic nursing skills, HIV/AIDS, and clinical training in a long-term facility. After successful completion of the Nursing Assistant Program, students are eligible to sit for the State of Washington Nursing Assistant examination for State certification. Students receiving their certification will be eligible to apply for employment in hospitals, clinics, long-term care facilities, and home or community health agencies.

I-BEST pairs English as a Second Language (ESL) and/or Adult Basic Education (ABE) instructors with career and technical education instructors in the classroom to concurrently provide students with literacy education and workforce skills. I-BEST students are required to attend ABE/GED 071 classes in addition to the NAC classes.

This program requires CASAS testing and requires a multi-step process before students can apply.

I-BEST NAC classes run approximately 10 weeks (8 weeks in the summer) and are on a Monday-through-Friday daytime schedule.

Participation Requirements

- 18 years of age or older
- High school diploma or GED is recommended, but not required
- Proof of 2-step TB test or clear chest x-ray within 6 months upon acceptance into the program
- Clear criminal background check. All accepted students are required to complete and pass the FBI, Washington State Patrol/Oregon State Patrol (depending on state residence) criminal background check process. The process requires a fee and the applicant's social security number.
- Upon successful selection, attendance at mandatory Nursing Assistant Orientation. Attendance is required or the next eligible alternate student will be given the assigned placement in the program. Students will be informed of the orientation date, time and place.

Application Requirements

All applicants must submit the following four (4) items by the stated deadline on the Statement of Intent form in order to be considered for the quarter's NAC class:

- Application for Admission to (if not already a student at) Clark College
- Statement of Intent form
- Criminal Background Check results
- Copy of current driver's license or other legal photo ID

Classes are held at the Clark Center at Washington State University, Vancouver and Columbia Tech Center in east Clark County. Clinical skills training is in a supervised client care setting in the Clark County area.

Major Area Requirements

NAC 103	NURSING ASSISTANT FOUNDATIONS/CLINICAL	9 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.
		Total Required Credits: 10

Note: ABE/GED 071 is required of all I-BEST NAC students. It provides extra support for students who have tested below college level in reading or math.

Program Outcomes

- Behave in a professional and ethical manner when interacting with patients, health care professionals, and peers.
- Identify and implement safety and emergency procedures.
- Utilize basic technical skills to promote the highest level of care for residents, recognizing individual, cultural, and religious diversity.
- Successfully complete NAC State Written and Skills Exam.

Nursing Assistant Certified (NAC) (CERT)

The Nursing Assistant Certificate program provides instruction in basic nursing skills, HIV/AIDS, and clinical training in a long-term facility. After successful completion of the Nursing Assistant Program, students are eligible to sit for the State of Washington Nursing Assistant examination for State certification. Students receiving their certification will be eligible to apply for employment in hospitals, clinics, long-term care facilities, and home or community health agencies.

Participation Requirements

- 18 years of age or older
- High school diploma or GED is recommended, but not required
- Proof of 2-step TB test or clear chest x-ray within 6 months upon acceptance into the program
- Clear criminal background check. All accepted students are required to complete and pass the FBI, Washington State Patrol/Oregon State Patrol (depending on state residence) criminal background check process. The process requires a fee and the applicant's social security number.
- Upon successful selection, attendance at mandatory Nursing Assistant Orientation. Attendance is required or the next eligible alternate student will be given the assigned placement in the program. Students will be informed of the orientation date, time and place.

Application Requirements

All applicants must submit the following four (4) items by the stated deadline on the Statement of Intent form in order to be considered for the quarter's NAC class:

- Application for Admission to (if not already a student at) Clark College
- Statement of Intent form
- Criminal Background Check results
- Copy of current driver's license or other legal photo ID

Classes are held at the Clark Center at Washington State University, Vancouver and Columbia Tech Center in east Clark County. Clinical skills training is in a supervised client care setting in the Clark County area.

Major Area Requirement

NAC 103	NURSING ASSISTANT FOUNDATIONS/CLINICAL	9 cr.
		Total Required Credits: 9

Program Outcomes

- Behave in a professional and ethical manner when interacting with patients, health care professionals, and peers.
- Identify and implement safety and emergency procedures.
- Utilize basic technical skills to promote the highest level of care for residents, recognizing individual, cultural, and religious diversity.
- Successfully complete NAC State Written and Skills Exam.

Paralegal

Paralegals, or legal assistants, have come to occupy a recognized place of importance in the legal profession. Responsibilities are broad and may include interviewing clients and witnesses; conducting investigations; developing evidence, legal research, legal document preparation, legal case management; and providing general litigation assistance in various agencies and in the courts.

A legal assistant/paralegal cannot give legal advice, represent a client in court, set a fee, or accept a case; these functions are generally considered the practice of law.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Paralegal (CP)

Designed for students with prior college and law office experience.

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BTEC 122	WORD FOR BUSINESS	5 cr.
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or BTEC 125	INTRODUCTION TO WORD	3 cr.
PRLE 101	INTRODUCTION TO LEGAL THEORY	3 cr.
PRLE 102	LEGAL ETHICS	3 cr.
PRLE 103	LEGAL RESEARCH	3 cr.
PRLE 106	LEGAL WRITING I	3 cr.
PRLE 109	CIVIL LITIGATION AND PROCEDURES	3 cr.
or PRLE 110	CRIMINAL LAW AND PROCEDURES	3 cr.
PRLE 151	LEGAL DOCUMENT PREPARATION	3 cr.
PRLE 203	COMPUTER RESEARCH IN LAW	3 cr.
PRLE 209	INSURANCE CLAIMS CASE PREPARATION	3 cr.
PRLE 295	CASA SPECIAL PROJECT	1-5 cr.
or PRLE 299	PARALEGAL INTERNSHIP	1-3 cr.

Additional Major Area Requirements

Select a minimum of 15 credits:

PRLE 109	CIVIL LITIGATION AND PROCEDURES	3 cr.
or PRLE 110	CRIMINAL LAW AND PROCEDURES	3 cr.
PRLE 115	LAW OFFICE PROCEDURES AND COMPUTER TECHNOLOGY	3 cr.
PRLE 204	FAMILY LAW	3 cr.
PRLE 205	ESTATE PLANNING AND PROBATE LAW	3 cr.
PRLE 206	REAL ESTATE AND PROPERTY LAW	3 cr.
PRLE 207	BUSINESS ORGANIZATIONS	3 cr.
PRLE 208	BANKRUPTCY LAW	3 cr.
PRLE 210	LEGAL WRITING II	3 cr.
PRLE 211	TORT LAW AND PROCEDURES	3 cr.
PRLE 212	LAW AND ECONOMICS	3 cr.
PRLE 290	SPECIAL PROJECTS	1-5 cr.
PRLE 295	CASA SPECIAL PROJECT	1-5 cr.

Recommended Electives (Not Required)

Typing skills with at least 40 wpm.

BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.

Total Required Credits: 54-60

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Assist attorneys by investigating cases and other legal matters, interviewing clients and witnesses.
- Perform independent and attorney-supervised legal research; prepare correspondence.
- Use accurate language, including written and oral legal terminology.
- Format and prepare various legal documents and pleadings for use in court, with multiple parties, and relating to the various business entities.

- Demonstrate a working knowledge of computers, specialized legal-office software, and other technological applications; establish and maintain manual and electronic filing systems.
- Demonstrate the interpersonal skills required to engage with the legal community, clients and the public; corporate and other business executives; and government officials at all levels.
- Present and defend legal viewpoints through written and oral assignments.
- Identify and evaluate ethical issues and standards of practice pertaining to legal professionals; select an appropriate framework for appropriately responding to situations requiring legal, moral and ethical judgments.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Paralegal (AAS)

Designed for students with no prior college and law office experience.

General Education Requirements

Communication Skills (6 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
ENGL 212	BUSINESS COMMUNICATIONS	3 cr.

Health & Physical Education (3 credits required) 3 cr.

Computational Skills (3 credits required)

MATH 065	FUNDAMENTALS OF BUSINESS MATHEMATICS	5 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.

Humanities (3 credits required)

Social Sciences (3 credits required)

PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
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Natural Sciences (3 credits required)

Major Area Requirements

BTEC 122	WORD FOR BUSINESS	5 cr.
or BTEC 125	INTRODUCTION TO WORD	3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BTEC 165	POWERPOINT PRESENTATION	3 cr.
or BTEC 169	INTRODUCTION TO EXCEL	3 cr.
or BTEC 170	EXCEL FOR BUSINESS	3 cr.
or BTEC 175	ACCESS FOR BUSINESS	3 cr.
BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 201	BUSINESS LAW	5 cr.

POLS 111	AMERICAN NATIONAL GOVERNMENT AND POLITICS	5 cr.
or POLS 131	STATE AND LOCAL GOVERNMENT	5 cr.
or POLS 141	SURVEY OF STATE AND LOCAL GOVERNMENT	3 cr.
or POLS 171	SURVEY OF THE UNITED STATES CONSTITUTION	3 cr.
PRLE 101	INTRODUCTION TO LEGAL THEORY	3 cr.
PRLE 102	LEGAL ETHICS	3 cr.
PRLE 103	LEGAL RESEARCH	3 cr.
PRLE 106	LEGAL WRITING I	3 cr.
PRLE 109	CIVIL LITIGATION AND PROCEDURES	3 cr.
or PRLE 110	CRIMINAL LAW AND PROCEDURES	3 cr.
PRLE 150	INTERVIEWING, INVESTIGATION AND EVIDENCE	3 cr.
PRLE 151	LEGAL DOCUMENT PREPARATION	3 cr.
PRLE 203	COMPUTER RESEARCH IN LAW	3 cr.
PRLE 209	INSURANCE CLAIMS CASE PREPARATION	3 cr.
PRLE 295	CASA SPECIAL PROJECT	1-5 cr.
or PRLE 299	PARALEGAL INTERNSHIP	1-3 cr.

Additional Major Area Requirements

Select a minimum of 15 credits:

PRLE 109	CIVIL LITIGATION AND PROCEDURES	3 cr.
or PRLE 110	CRIMINAL LAW AND PROCEDURES	3 cr.
PRLE 115	LAW OFFICE PROCEDURES AND COMPUTER TECHNOLOGY	3 cr.
PRLE 204	FAMILY LAW	3 cr.
PRLE 205	ESTATE PLANNING AND PROBATE LAW	3 cr.
PRLE 206	REAL ESTATE AND PROPERTY LAW	3 cr.
PRLE 207	BUSINESS ORGANIZATIONS	3 cr.
PRLE 208	BANKRUPTCY LAW	3 cr.
PRLE 210	LEGAL WRITING II	3 cr.
PRLE 211	TORT LAW AND PROCEDURES	3 cr.
PRLE 212	LAW AND ECONOMICS	3 cr.
PRLE 290	SPECIAL PROJECTS	1-5 cr.
PRLE 295	CASA SPECIAL PROJECT	1-5 cr.

Recommended Elective (Not required)

Typing skills with at least 40 wpm.

BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
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Total Required Credits: 94-100

*CMST courses may not count for more than two distribution areas of general education requirements.

Program Outcomes

- Assist attorneys by investigating cases and other legal matters, interviewing clients and witnesses, making decisions and solving legal problems.
- Perform independent and attorney-supervised legal research, applying and presenting legal principles in an industry-accepted manner for use in various legal contexts and environments.
- Comprehend and prepare legal documents and correspondence and assist attorneys with the drafting of such documents through editing and proofreading.
- Demonstrate the interpersonal skills required to engage with the legal community, clients and the public, corporate and other business executives and government officials at all levels.
- Identify, analyze and evaluate ethical issues and standards of practice pertaining to legal professionals; select an appropriate framework for resolving ethical dilemmas around sound professionalism; and respond appropriately to situations requiring legal, moral and ethical judgments.
- Demonstrate effective organizational, time-management and interpersonal skills in the workplace.
- Demonstrate a working knowledge of computers, specialized legal-office software, and other technological applications; establish and maintain manual and electronic filing systems.
- Present and defend legal viewpoints through written and oral assignments.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Pharmacy Technician

Pharmacy technicians in Washington and Oregon are employed in hospitals and outpatient facilities. They assist licensed pharmacists in dispensing medications, assist with compounding and IV drug preparation, take inventory, stock supplies, type prescription labels, and perform other assignments as allowed by law. Pharmacy technicians, by law, are employed under the direct supervision of a licensed pharmacist. Both chain and community retail pharmacies, as well as all hospitals, employ pharmacy technicians.

The profession of pharmacy requires highly motivated and trained technicians to provide the drug preparation and distributive functions that support the medication management and pharmaceutical care duties of the pharmacist.

Clark College's program consists of classroom and practicum education and training. Students learn the theory in class, practice in a mock pharmacy mini-lab, and then apply their knowledge in actual pharmacy practicum settings.

The current certificate program includes a three-quarter, 63-64 credit course sequence. The practicum (direct pharmacy training) consists of two 120-hour experiences in different pharmacy sites under the supervision of a pharmacist.

Application Process

Admission to the program is outlined in two stages: preliminary requirements and final program admission.

Students must apply and pay an application fee to be included in selection. Application date is used in ranking students for selection, so it is beneficial to apply early.

Preliminary Requirements

- Complete the Clark College Application for Admission and the Pharmacy Technician Application. Return them to the Clark College Welcome Center with the non-refundable program application fees (subject to change). For the current fee amounts, please visit the Pharmacy Technician website at www.clark.edu/pharmacytech. Date of Pharmacy Application (fee paid date) will be considered in selecting students for entry into the program.
- To comply with Washington State Law [WAC 246-901-030(2)], Clark College requires that students must submit proof of high school graduation, GED completion, or U.S. degree conferment to be eligible for selection into the Pharmacy Technician program. Students must submit official transcripts in a sealed envelope to the Clark College Welcome Center.
- Earn a COMPASS Testing score of 74 or higher in reading, or complete READ 087 or equivalent with a 2.0 grade or higher.
- Earn a COMPASS Testing score of 78 or higher in writing, or complete ENGL 098 or equivalent with a 2.0 grade or higher.
- Earn a COMPASS Testing score of 54 or higher in math numerical skills, or complete MATH 030 or equivalent with a 2.0 grade or higher (Math score or class must be seven [7] years current upon program entry).
- Complete program Preliminary Requirements with a 2.0 GPA or better:
- BMED 110 - Medical Terminology * • BTEC 149 - Computer Application Essentials (or BTEC 116, 117 AND 118) • HEOC 102 - Survey of Health Careers (formerly HEOC 090)
- HEOC 120 - AIDS Education (or proof of 4-7 hour AIDS Education certificate)
- Obtain a minimum Clark College cumulative GPA of 2.5 or above.
- Accepted students must complete a Washington State Patrol and FBI criminal background check

The most recent educational experience will be used to meet these criteria. Applicants are responsible for requesting their official high school and college transcripts be sent to Clark College.

Additional Requirements

Prior to program entry students must complete additional course requirements with a 2.0 or above:

- HEOC 100 AND HEOC 101- Basic Concepts of Anatomy and Physiology w/lab (must be seven years current upon program entrance).

OR

- BIOL 164 AND 165- Human Biology w/lab (must be seven years current upon program entrance).
- FACPR 032- First Aid and Health Care Provider CPR
- BMED 138- Legal Aspects of the Medical Office

Completion of CMST& 210 prior to entering the program is strongly encouraged.

Final Program Admission

Upon completion of preliminary requirements, an evaluation will be completed, and the applicant will be notified by the Credential Evaluations Office of additional procedures necessary for program consideration.

Program Progression

In order to progress from one course or quarter to the next after beginning the Pharmacy Technician program, the student must:

- Achieve a GPA of 2.0 or higher in all courses.
- Maintain a cumulative GPA of 2.5 or higher.

Graduates of the Clark College Pharmacy Technician program will be eligible for:

- Clark College Certificate of Proficiency
- Washington Board of Pharmacy Certificate
- Oregon Board of Pharmacy Registration
- National Pharmacy Technician Certification Exam

Please note: Completion of the Pre-Pharmacy Technician requirements does not guarantee entrance into the program. The Pharmacy Technician program has limited enrollment and Clark College reserves the right to determine admission status.

Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dss. Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

Pharmacy Technician (CP)

Preliminary Requirements

BMED 110	MEDICAL TERMINOLOGY I *	3 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
or BTEC 116	APPLICATION ESSENTIALS: WORD	1 cr.
and BTEC 117	APPLICATION ESSENTIALS: EXCEL	1 cr.
and BTEC 118	APPLICATION ESSENTIALS: POWERPOINT	1 cr.
HEOC 102	HEALTH CAREERS EXPLORATION	2 cr.
HEOC 120	AIDS EDUCATION	1 cr.

Additional Requirements

BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	3 cr.
and HEOC 101	BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB *	1 cr.
or BIOL 164	HUMAN BIOLOGY *	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB *	1 cr.

General Education Requirements

Communication Skills (3 credits required)		3 cr.
Computational Skills (3 credits required)		
PHAR 110	PHARMACY CALCULATIONS	3 cr.
Human Relations (3 credits required)		
CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.

Major Area Requirements

BMED 111	MEDICAL TERMINOLOGY II *	3 cr.
PHAR 105	INTRODUCTION TO PHARMACY	4 cr.
PHAR 112	PHARMACOLOGY I	5 cr.
PHAR 114	PHARMACY PRACTICE AND TECHNOLOGY	4 cr.
PHAR 118	PHARMACY EXTERNSHIP I	4 cr.
PHAR 119	PHARMACY EXTERNSHIP SEMINAR I	2 cr.
PHAR 122	PHARMACOLOGY II	5 cr.
PHAR 123	PHARMACY LAW	2 cr.
PHAR 127	PHARMACY COMPOUNDING	4 cr.
PHAR 128	PHARMACY EXTERNSHIP II	4 cr.
PHAR 129	PHARMACY EXTERNSHIP SEMINAR II	2 cr.

Total Required Credits: 66-67

* Must be seven years current upon program entry.

General Information

Selection criteria is subject to change. For complete updated information, please refer to the application materials, available online at www.clark.edu/pharmacytech. To learn more about this program's employment outlook, approximate cost and potential careers, please visit the [Gainful Employment Program Information page](#).

Program Outcomes

- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.
- Exhibit effective communication skills in interactions with patients and other healthcare professionals.
- Demonstrate knowledge of pharmacy processes and information technology to accurately and safely prepare and dispense medications in a variety of pharmacy settings.
- Demonstrate professional clinical skills in the workplace while complying with laws, regulations, and ethical standards of practice.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Pharmacy Technician Leadership (AAT)

The Associate in Applied Technology (AAT) in Pharmacy Technician Leadership is intended for those students who would like to continue their education beyond the Pharmacy Technician Certificate of Proficiency. Currently, the Certificate of Proficiency is a one-year program. Courses required for the AAT focus on developing skill sets in leadership, business relations, and professional development. These additional skill sets will provide students with a significant advantage in securing entry-level positions as well as progressing within their career field.

Preliminary Requirements

BMED 110	MEDICAL TERMINOLOGY I *	3 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
or BTEC 116	APPLICATION ESSENTIALS: WORD	1 cr.
and BTEC 117	APPLICATION ESSENTIALS: EXCEL	1 cr.
and BTEC 118	APPLICATION ESSENTIALS: POWERPOINT	1 cr.
FACPR032	FIRST AID AND HEALTH CARE PROVIDER CPR	1 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	3 cr.
and HEOC 101	BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB *	1 cr.
or BIOL 164	HUMAN BIOLOGY *	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB *	1 cr.
HEOC 102	HEALTH CAREERS EXPLORATION	2 cr.
HEOC 120	AIDS EDUCATION	1 cr.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
or ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

5 cr.

Human Relations (5 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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Major Area Requirements

BMED 111	MEDICAL TERMINOLOGY II *	3 cr.
PHAR 105	INTRODUCTION TO PHARMACY	4 cr.
PHAR 110	PHARMACY CALCULATIONS	3 cr.
PHAR 112	PHARMACOLOGY I	5 cr.
PHAR 114	PHARMACY PRACTICE AND TECHNOLOGY (with lab)	4 cr.
PHAR 118	PHARMACY EXTERNSHIP I	4 cr.
PHAR 119	PHARMACY EXTERNSHIP SEMINAR I	2 cr.
PHAR 122	PHARMACOLOGY II	5 cr.
PHAR 123	PHARMACY LAW	2 cr.
PHAR 127	PHARMACY COMPOUNDING	4 cr.
PHAR 128	PHARMACY EXTERNSHIP II	4 cr.
PHAR 129	PHARMACY EXTERNSHIP SEMINAR II	2 cr.

Additional Requirements

HDEV 120	PRACTICAL REASONING AND DECISION MAKING	3 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.
MGMT 133	PRODUCTION AND OPERATIONS MANAGEMENT	3 cr.

Electives

Select a minimum of two(2) courses from the following list:

ACED 101	SURVEY OF ADDICTIONOLOGY	3 cr.
BMED 222	HEALTH INFORMATION PROCEDURES	5 cr.
BUS 110	CUSTOMER SERVICE	3 cr.
BUS 211	BUSINESS COMMUNICATIONS	3 cr.
or ENGL 212	BUSINESS COMMUNICATIONS	3 cr.
HUM 180	BIOETHICS	3 cr.
or BIOL 180	BIOETHICS	3 cr.
MGMT 106	MOTIVATION AND PERFORMANCE	3 cr.

Total Required Credits: 90-93

** Must be seven years current upon program entry.*

Program Outcomes

- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.
- Exhibit effective communication skills in interactions with patients and other healthcare professionals.
- Demonstrate knowledge of pharmacy processes and information technology to efficiently manage pharmacy staffing issues and activities.
- Demonstrate professional and clinical leadership skills in the workplace while complying with laws, regulations, and ethical standards of practice.
- Demonstrate knowledge of pharmacy processes and information technology to accurately and safely prepare and dispense medications in a variety of pharmacy settings.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Phlebotomy

Phlebotomy Program Is Currently Under Revision

Attention Students:

Due to curriculum revisions, Clark College will be cancelling the Phlebotomy program until further notice. This is necessary so that the college can continue to offer a quality program that meets the current needs of students and the health care industry. Program updates and any requirement changes will be posted on the program web site at: www.clark.edu/phlebotomy

If you have already applied and paid the program application fee but due to this cancellation no longer wish to pursue the Phlebotomy program at Clark College, please contact the Credentials Evaluation Office at (360) 992-2805. For Phlebotomy program questions you may also contact the Allied Health Office at (360) 992-2075.

Clark College has other programs within the health care industry that may be of interest to students. Please contact the Advising Center at (360) 992-2345 to speak with a Health Occupation Advisor, or e-mail heoc.ed.adv@clark.edu to explore other options.

Physics

Physics is the study of the fundamental nature of our universe. This knowledge is applicable to a wide variety of disciplines in the biological and physical sciences, engineering, medicine, and technology. By taking physics at Clark College, you will get the benefits of small class size, up-to-date laboratory equipment, and instructors who place their emphasis on quality learning.

Physics majors can choose from a variety of courses and are encouraged to explore a wide sample of offerings to obtain a well-rounded education. Students wishing to major in physics should contact the Physics Department for program guidance.

Physics (AST2)

This is a suggested program for the first two years of major study in Physics. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible. Additional courses are needed to satisfy graduation requirements for the Associate in Science or the Associate in Arts degree.

General Education Requirements

Communication Skills (5 credits required)

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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Quantitative Skills (10 credits required)

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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Health & Physical Education (3 credits required)

Health Requirement		2 cr.
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Physical Education Activity		1 cr.
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Humanities & Social Sciences (15 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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or CMST& 220	PUBLIC SPEAKING	5 cr.
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or CMST& 230	SMALL GROUP COMMUNICATION	5 cr.
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Humanities and Social Sciences Requirements		10 cr.
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Pre-Major Program Requirements

ENGL& 102	ENGLISH COMPOSITION II	5 cr.
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or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
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MATH 111	COLLEGE ALGEBRA	5 cr.
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MATH& 153	CALCULUS III	5 cr.
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MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
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MATH& 254	CALCULUS IV	5 cr.
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Electives		1-5 cr.
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Science Sequence Requirements

CHEM& 141	GENERAL CHEMISTRY I	4 cr.
CHEM& 142	GENERAL CHEMISTRY II	4 cr.
CHEM& 143	GENERAL CHEMISTRY III	4 cr.
CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
CHEM& 153	GENERAL CHEMISTRY LABORATORY III	2 cr.
PHYS& 221	ENGINEERING PHYSICS	5 cr.
PHYS& 222	ENGINEERING PHYSICS	5 cr.
PHYS& 223	ENGINEERING PHYSICS	5 cr.

Total Required Credits: 90 minimum

Physics Education

Physics is the study of the fundamental nature of our universe. This knowledge is applicable to a wide variety of disciplines in the biological and physical sciences, engineering, medicine, and technology. By taking physics at Clark College, you will get the benefits of small class size, up-to-date laboratory equipment, and instructors who place their emphasis on quality learning.

Physics majors can choose from a variety of courses and are encouraged to explore a wide sample of offerings to obtain a well-rounded education. Students wishing to major in physics should contact the Physics Department for program guidance.

Physics Education (AST2)

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has these differences from the Articulated Degree defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for checking specific major requirements of baccalaureate institutions in the year prior to transferring.

Please visit the Major Related Programs/Articulated Degrees section of this catalog to view a printable PDF of this document.

Generic Requirements

A. Basic Requirements

- | | |
|---|--------------|
| 1. Communication Skills | 5 cr. |
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| 2. Quantitative/Symbolic Reasoning | 5 cr. |
| Intermediate algebra proficiency is required. | |
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B. Distribution Requirements

- | | |
|---|---------------|
| 1. Humanities/Fine Arts/English & Social Sciences | 15 cr. |
| 15 credits of humanities and social science with at least 5 credits taken from each. Three different subjects required. No more than 5 credits of performance classes are allowed. | |
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| 2. Science Pre-Major Requirements | |
| • Physics (calculus-based or non-calculus based sequence including laboratory [15 quarter credits]) | |
| • Chemistry with laboratory (5 credits) required for Engineering majors. Others should select 5 credits of science based on advising. | |
| • Computer programming (4 quarter credits) credit course chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend. | |
| • Third-quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend. | |
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C. Electives

1. Elective Courses

The remaining 31 quarter credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend. For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards.

Articulated Degree Requirements

A. Basic Requirements

- | | |
|---|---------------|
| 1. English Composition | 5 cr. |
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| 2. Calculus | 10 cr. |
| Intermediate algebra proficiency is required. | |
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B. Distribution Requirements

- | | |
|--|---------------|
| 1. Humanities/Fine Arts/English & Social Sciences | 15 cr. |
| 5 quarter credits Introductory Speech | |
| 5 quarter credits General Psychology | |
| <hr/> | |
| 2. Science Pre-major Requirement | |
| • 15 quarter credits Physics (calculus-based) | |
| • 10 quarter credits General Chemistry | |
| • 10 credits 3rd and 4th quarter calculus | |
| • 5 quarter credits Linear Algebra | |
| • 5 quarter credits Differential Equations | |
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C. Electives

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|--|
| 1. Elective Courses 10-15 credits, depending on pathways above. |
| 5 additional quarter credits of English composition. |
| 1 credit selected from this area within the AST. |
| Field Experience or Intro to Education recommended. |
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Clark College Equivalents

A. Basic Requirements

1. Communication Skills

ENGL& 101	ENGLISH COMPOSITION I	5 cr.
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2. Quantitative/Symbolic Reasoning Requirements

MATH& 151	CALCULUS I	5 cr.
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MATH& 152	CALCULUS II	5 cr.
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B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

CMST& 220	PUBLIC SPEAKING	5 cr.
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PSYC& 100	GENERAL PSYCHOLOGY	5 cr.
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2. Science Pre-Major Requirement

PHYS& 221	ENGINEERING PHYSICS	5 cr.
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PHYS& 222	ENGINEERING PHYSICS	5 cr.
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PHYS& 223	ENGINEERING PHYSICS	5 cr.
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CHEM& 141	GENERAL CHEMISTRY I	4 cr.
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CHEM& 142	GENERAL CHEMISTRY II	4 cr.
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CHEM& 151	GENERAL CHEMISTRY LABORATORY I	1 cr.
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CHEM& 152	GENERAL CHEMISTRY LABORATORY II	1 cr.
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MATH& 153	CALCULUS III	5 cr.
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MATH& 254	CALCULUS IV	5 cr.
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MATH 215	LINEAR ALGEBRA	5 cr.
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MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
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C. Electives

1. Elective Courses

1 cr. selected from this area within the AST.

ENGL& 102	ENGLISH COMPOSITION II Required	5 cr.
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EDUC& 201	INTRODUCTION TO EDUCATION Recommended	3 cr.
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EDUC 210	INTRODUCTORY FIELD EXPERIENCE Recommended	3 cr.
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Plus additional credits to reach 90 minimum quarter credits. These may include needed college-level calculus prerequisites.

Notes

A. Basic Requirements

1. Quantitative/Symbolic Reasoning Requirement

Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences

Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

2. Science Pre-major Requirement

Students should be advised that some baccalaureate institutions require physics with calculus to meet this requirement.

C. Electives

1. Elective Courses

A maximum of five (5) quarter credits of "gray area" courses will be accepted in the remaining credits category.

Total Required Credits: 90

Power Utilities Technology

The Power Utilities Technology program prepares the student for various entry-level positions in electric utilities, firms servicing the utilities, and industrial firms using power level electrical equipment in their operations.

Electric power system operation involves high power level generation; transmission and distribution facilities; and related monitoring, control, and protection equipment. Efficient and reliable operation of these systems requires operations and maintenance staff members who understand the characteristics of the various systems and understand how to safely operate and maintain such complex and high power level equipment.

General Preparation

Many of the courses in the program and in the utility/industrial workplace environment require basic mathematics skills (algebra and trigonometry), basic physics knowledge, and written and spoken language skills. Testing is required to determine if mathematical and English levels are adequate for admission to the program.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Power Utilities Technology (CP)

General Education Requirements

Communication Skills (3 credits required)

ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
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Computational Skills (3 credits required)

MATH 098	TECHNICAL MATHEMATICS I	3 cr.
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Human Relations (3 credits required)

Major Area Requirements

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
HLTH 120	ADULT CPR AND FIRST AID **	1 cr.
MATH 099	TECHNICAL MATHEMATICS II	3 cr.
PWR 101	BASIC ELECTRICAL CONCEPTS *	7 cr.
PWR 150	CAREER EXPLORATION FOR THE POWER UTILITIES	1 cr.
PWR 151	INTRODUCTION TO THE POWER UTILITIES INDUSTRY	7 cr.
PWR 152	TOOLS OF THE TRADE	2 cr.
PWR 153	ELECTRICAL SAFETY	1 cr.
PWR 154	ELECTRICAL SYSTEM COMPONENTS	7 cr.
PWR 155	PRINT READING FOR THE UTILITY INDUSTRY	2 cr.
PWR 156	ELECTRICAL SYSTEM TROUBLE SHOOTING	2 cr.
PWR 199	COOPERATIVE WORK EXPERIENCE (3 credits required)	1-6 cr.

Total Required Credits: 49-50

* MATH 090, Elementary Algebra and ENGL 098, Writing Fundamentals are prerequisites for PWR 101, Basic Electrical Concepts.

** Or Current CPR/First Aid Card.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Demonstrate knowledge of the physical components of electric power systems and of operating procedures and methods of power systems as preparation for apprenticeship positions related to installation, maintenance, and operation of power system equipment.
- Identify basic power-system components on engineering prints.
- Relate basic engineering-print circuit diagrams to physical systems and assemble a physical system from a simplified schematic.
- Convert circuit diagrams to physical systems and troubleshoot and operate the circuits.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Power Utilities Technology - Estimator/Engineering Technician (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL 135	INTRODUCTION TO TECHNICAL WRITING	5 cr.
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Computational Skills (5 credits required)

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
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Human Relations (5 credits required)

MGMT 100	THE BUSINESS ENVIRONMENT	5 cr.
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Major Area Requirements

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
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CADD 130	BASIC MICROSTATION	4 cr.
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CADD 140	BASIC AUTOCAD	4 cr.
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CADD 143	CIVIL DRAFTING 1 WITH AUTOCAD	4 cr.
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CADD 230	CIVIL DRAFTING 2	3 cr.
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CMST& 210	INTERPERSONAL COMMUNICATION	5 cr.
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CNST 108	JOB ESTIMATING AND SCHEDULING	3 cr.
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HLTH 120	ADULT CPR AND FIRST AID	1 cr.
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ITEL 071	BASIC NATIONAL ELECTRICAL CODE	3 cr.
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ITEL 072	BASIC NATIONAL ELECTRICAL CODE	3 cr.
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MATH 095	INTERMEDIATE ALGEBRA	5 cr.
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MATH 098	TECHNICAL MATHEMATICS I	3 cr.
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MATH 099	TECHNICAL MATHEMATICS II	3 cr.
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MGMT 126	PROJECT MANAGEMENT	4 cr.
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PWR 101	BASIC ELECTRICAL CONCEPTS	7 cr.
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PWR 150	CAREER EXPLORATION FOR THE POWER UTILITIES	1 cr.
PWR 151	INTRODUCTION TO THE POWER UTILITIES INDUSTRY	7 cr.
PWR 152	TOOLS OF THE TRADE	2 cr.
PWR 153	ELECTRICAL SAFETY	1 cr.
PWR 154	ELECTRICAL SYSTEM COMPONENTS	7 cr.
PWR 155	PRINT READING FOR THE UTILITY INDUSTRY	2 cr.
PWR 156	ELECTRICAL SYSTEM TROUBLE SHOOTING	2 cr.
PWR 201	ELECTRIC UTILITY SYSTEM PROTECTION	3 cr.
SURV 125	INTRODUCTION TO GIS	3 cr.

Total Required Credits: 97

Program Outcomes

- Determine customer needs for developing project plans, cost estimates, and prints necessary to execute customer-connection projects.
- Develop project plans, cost estimates, and prints necessary to install equipment and add facilities to the system, such as substation additions, transmission line and/or distribution line projects.
- Demonstrate the skills necessary to stay current in the field.
- Work effectively to manage relationships with supervisors, peers, and subordinates.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Surveying & Geomatics

Degree Requirements

The Surveying and Geomatics program is designed to meet entry-level field and office skills in a variety of land surveying and geomatics occupations. Training will utilize precision electronic surveying instruments, including Global Positioning System equipment and sophisticated computerized drafting, mapping, design, and analysis software.

An Associate in Applied Science degree will be awarded upon successful completion of the course requirements. All core and general education list requirements must be met, with any additional credits to be selected as electives. Students are encouraged to complete basic skills at the beginning of their education. Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Full-time students seeking an Associate in Applied Science degree typically complete this program in a minimum of six quarters, if basic skills and prerequisites are complete. Students interested in pursuing a baccalaureate degree in a Surveying or GIS field, a formal articulation agreement between Clark College and the Oregon Institute of Technology in Klamath Falls, Oregon is in place. Please consult with an advisor for additional requirements regarding this specific educational path.

Student Preparation

It is recommended that students prepare for entrance into the program by emphasizing mathematics and science in high school. Two years of algebra and one year each of geometry, trigonometry, and physics are desirable prerequisites.

Career Opportunities

Completion of this program prepares students for work as Surveying Technicians and can lead to a career as a Professional Land Surveyor. The employment forecast for graduates in this field are exceptional. As increasing number of licensed surveyors across the nation retire, a personnel shortage has been created within this profession.

Surveying & Geomatics (AAS)

General Education Requirements

Communication Skills (6 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.
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ENGL 135	INTRODUCTION TO TECHNICAL WRITING (recommended)	5 cr.
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Health & Physical Education (3 credits required)

HPE 220	INDUSTRIAL HEALTH AND FITNESS (recommended)	3 cr.
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Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.
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Human Relations (3 credits required)

CMST& 210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.
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Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

PHSC 101	GENERAL PHYSICAL SCIENCE (recommended)	5 cr.
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Major Area Requirements

BTEC 169	INTRODUCTION TO EXCEL	3 cr.
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CADD 140	BASIC AUTOCAD	4 cr.
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or ENGR 140	BASIC AUTOCADD	4 cr.
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CADD 143	CIVIL DRAFTING 1 WITH AUTOCAD	4 cr.
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ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
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MATH 111	COLLEGE ALGEBRA (or higher)	5 cr.
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MATH& 151	CALCULUS I (or higher)	5 cr.
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SURV 100	INTRODUCTION TO GPS	2 cr.
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SURV 102	FUNDAMENTALS OF SURVEY (recommended)	2 cr.
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SURV 104	APPLIED MATH FOR SURVEYING	5 cr.
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SURV 121	FIELD SURVEY I	5 cr.
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or ENGR 121	FIELD SURVEY I	5 cr.
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SURV 122	FIELD SURVEY II	5 cr.
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SURV 123	SURVEY TECHNOLOGY SEMINAR	2 cr.
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SURV 125	INTRODUCTION TO GIS	3 cr.
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SURV 163	ROUTE SURVEYING	5 cr.
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SURV 202	BOUNDARY SURVEYS	4 cr.
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SURV 203	LEGAL DESCRIPTIONS	3 cr.
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SURV 223	BOUNDARY LAW I	3 cr.
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SURV 225	SUBDIVISION PLANNING A & PLATTING	3 cr.
SURV 250	ARC GIS I	4 cr.
SURV 264	SURVEY SOFTWARE APPLICATIONS	3 cr.

Total Required Credits: 93

Program Outcomes

- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Apply problem-solving skills as a member of a professional team in a field crew.
- Communicate in written form, verbally, and graphically with surveyors and engineers.
- Solve applied mathematical problems related to land surveying.
- Prepare complete field records.
- Practice a code of ethics prescribed by professional organizations and state codes.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Welding Technology

The Welding Technology program prepares students for entry-level welder employment in production, job shop, or maintenance positions. Students master basic and advanced welding skills while operating industry-quality, state-of-the-art equipment.

The Welding program can be completed in nine months (fall, winter, and spring quarters), one year or two years, depending on the certificate or degree desired. Career-upgrade certificate classes are also offered. American Welding Society welder certification is available to students enrolled in welding classes.

Placement test (COMPASS) is not required for program entrance. Students can pursue six Welding Technology programs, depending on their needs and career goals:

Welding Only Programs:

Nine-Month Program 86 credits

Certificates of Achievement 12-43 credits

Academic Programs (include General Education Requirements):

Certificate of Proficiency 95 credits

Associate in Applied Science Degree 107-110 credits

Associate in Applied Technology Degree 101 credits

Students must complete all Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Welding Technology - SMAW Arc Welding/Oxy Fuel Processes (CA)

Major Area Requirements

WELD 110	WELDING BLUEPRINT READING	4 cr.
or WELD 235	ELEMENTARY METALLURGY	2 cr.
and WELD 236	ELEMENTARY METALLURGY LAB	2 cr.
WELD 111	INTRODUCTION TO WELDING INDUSTRY	3 cr.
WELD 112	OXY-ACETYLENE AND SHIELDED METAL ARC LAB	10 cr.
WELD 113	SHIELDED METAL ARC WELDING THEORY I	3 cr.
WELD 114	SHIELDED METAL ARC WELDING LAB I	10 cr.
WELD 115	SHIELDED METAL ARC WELDING THEORY II	3 cr.
WELD 116	SHIELDED METAL ARC WELDING LAB II	10 cr.

Total Required Credits: 43

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Use personal-protection safety equipment and demonstrate safe work habits.
- Operate state-of-the-art welding equipment used in today's fabrication industries.
- Clamp, hold, tack-weld, straighten, and grind tee, lap, groove, and pipe joints to American Welding Society (AWS) standards.
- Interpret blueprints and specifications.
- Perform manual and semi-automatic oxyfuel cutting and plasma cutting operations required by skilled welders.
- Apply material classifications and identifications to metal fabrication methods.
- Apply physical metallurgy oriented towards the metalworking trades.

Welding Technology - Welded Sculpture and Fabrication Techniques (CA)

Major Area Requirements

ART 295	WELDED SCULPTURE THEORY I	1 cr.
ART 296	WELDED SCULPTURE THEORY II	1 cr.
ART 297	WELDED SCULPTURE THEORY III	1 cr.
WELD 120	WELDED SCULPTURE LAB I	3 cr.
WELD 121	WELDING SCULPTURE LAB II	3 cr.
WELD 122	WELDED SCULPTURE LAB III	3 cr.

Total Required Credits: 12

Program Outcomes

- Use personal-protection safety equipment and demonstrate safe work habits.
- Operate state-of-the-art welding equipment used in today's fabrication industries.
- Weld components in the flat, horizontal, vertical, and overhead positions.
- Utilize CNC software for plasma shape-cutting.

Welding Technology - Wirefeed/Advanced Arc Welding Processes (CA)

Major Area Requirements

WELD 110	WELDING BLUEPRINT READING	4 cr.
or WELD 235	ELEMENTARY METALLURGY	2 cr.
and WELD 236	ELEMENTARY METALLURGY LAB	2 cr.
WELD 221	GAS TUNGSTEN ARC WELDING	3 cr.
WELD 222	GAS TUNGSTEN ARC WELDING LAB	10 cr.
WELD 223	SEMI-AUTOMATIC WELDING	3 cr.
WELD 224	SEMI-AUTOMATIC WELDING LAB	10 cr.
WELD 225	SPECIAL WELDING PROCESSES	3 cr.
WELD 226	PRODUCTION WELDING PROCESSES	10 cr.

Total Required Credits: 43

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Use personal-protection safety equipment and demonstrate safe work habits.
- Clamp, hold, tack-weld, straighten, and grind tee, lap, groove, and pipe joints to American Welding Society (AWS) standards.
- Operate semi-automatic and automatic welding equipment to fuse metal joints.
- Interpret blueprints and specifications.
- Apply material classifications and identifications to metal fabrication methods.
- Apply physical metallurgy oriented towards the metalworking trades.

Welding Technology (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

WELD 110	WELDING BLUEPRINT READING	4 cr.
WELD 111	INTRODUCTION TO WELDING INDUSTRY	3 cr.
WELD 112	OXY-ACETYLENE AND SHIELDED METAL ARC LAB	10 cr.
WELD 113	SHIELDED METAL ARC WELDING THEORY I	3 cr.

WELD 114	SHIELDED METAL ARC WELDING LAB I	10 cr.
WELD 115	SHIELDED METAL ARC WELDING THEORY II	3 cr.
WELD 116	SHIELDED METAL ARC WELDING LAB II	10 cr.
WELD 221	GAS TUNGSTEN ARC WELDING	3 cr.
WELD 222	GAS TUNGSTEN ARC WELDING LAB	10 cr.
WELD 223	SEMI-AUTOMATIC WELDING	3 cr.
WELD 224	SEMI-AUTOMATIC WELDING LAB	10 cr.
WELD 225	SPECIAL WELDING PROCESSES	3 cr.
WELD 226	PRODUCTION WELDING PROCESSES	10 cr.
WELD 235	ELEMENTARY METALLURGY	2 cr.
WELD 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 95

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page.

Program Outcomes

- Operate manual, semi-automatic, and automatic welding equipment to fuse metal joints.
- Interpret blueprints and specifications.
- Examine work pieces for defects and measure work pieces with straightedges or templates to ensure conformance with specifications.
- Perform manual and semi-automatic oxyfuel cutting and plasma cutting operations required by skilled welders.
- Operate automatic CNC plasma cutting equipment.
- Apply material classifications and identifications to metal fabrication methods.
- Apply physical metallurgy oriented toward the metalworking trades.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Welding Technology (AAS)

In addition to completing all Major Area Requirement courses for the Certificate of Proficiency, students must also complete the following General Education Requirements:

General Education Requirements

Communication Skills (6 credits required)

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

Major Area Requirements

WELD 110	WELDING BLUEPRINT READING	4 cr.
WELD 111	INTRODUCTION TO WELDING INDUSTRY	3 cr.
WELD 112	OXY-ACETYLENE AND SHIELDED METAL ARC LAB	10 cr.
WELD 113	SHIELDED METAL ARC WELDING THEORY I	3 cr.
WELD 114	SHIELDED METAL ARC WELDING LAB I	10 cr.
WELD 115	SHIELDED METAL ARC WELDING THEORY II	3 cr.
WELD 116	SHIELDED METAL ARC WELDING LAB II	10 cr.
WELD 221	GAS TUNGSTEN ARC WELDING	3 cr.
WELD 222	GAS TUNGSTEN ARC WELDING LAB	10 cr.
WELD 223	SEMI-AUTOMATIC WELDING	3 cr.
WELD 224	SEMI-AUTOMATIC WELDING LAB	10 cr.
WELD 225	SPECIAL WELDING PROCESSES	3 cr.
WELD 226	PRODUCTION WELDING PROCESSES	10 cr.
WELD 235	ELEMENTARY METALLURGY	2 cr.
WELD 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 110

Program Outcomes

- Operate manual, semi-automatic, and automatic welding equipment to fuse metal joints.
- Interpret blueprints and specifications.
- Examine work pieces for defects and measure work pieces with straightedges or templates to ensure conformance with specifications.
- Perform manual and semi-automatic oxyfuel cutting and plasma cutting operations required by skilled welders.
- Operate automatic CNC plasma cutting equipment.
- Apply material classifications and identifications to metal fabrication methods.
- Apply physical metallurgy oriented toward the metalworking trades.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.
- Health and PE: Demonstrate progress toward healthier behaviors as appropriate for a career and technical education program.
- Humanities: Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts as appropriate for a career and technical education program.
- Social Science: Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences as appropriate for a career and technical education program.
- Science: Apply fundamental principles and relationships from the Natural Sciences to solve problems as appropriate for a career and technical education program.

Welding Technology (AAT)

General Education Requirements

Computational Skills (5 credits required)

Communication Skills (5 credits required)

Human Relations (5 credits required)

Major Area Requirements

WELD 110	WELDING BLUEPRINT READING	4 cr.
WELD 111	INTRODUCTION TO WELDING INDUSTRY	3 cr.
WELD 112	OXY-ACETYLENE AND SHIELDED METAL ARC LAB	10 cr.
WELD 113	SHIELDED METAL ARC WELDING THEORY I	3 cr.
WELD 114	SHIELDED METAL ARC WELDING LAB I	10 cr.
WELD 115	SHIELDED METAL ARC WELDING THEORY II	3 cr.
WELD 116	SHIELDED METAL ARC WELDING LAB II	10 cr.
WELD 221	GAS TUNGSTEN ARC WELDING	3 cr.
WELD 222	GAS TUNGSTEN ARC WELDING LAB	10 cr.
WELD 223	SEMI-AUTOMATIC WELDING	3 cr.
WELD 224	SEMI-AUTOMATIC WELDING LAB	10 cr.
WELD 225	SPECIAL WELDING PROCESSES	3 cr.
WELD 226	PRODUCTION WELDING PROCESSES	10 cr.
WELD 235	ELEMENTARY METALLURGY	2 cr.
WELD 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 101

Program Outcomes

- Operate manual, semi-automatic, and automatic welding equipment to fuse metal joints.
- Interpret blueprints and specifications.
- Examine work pieces for defects and measure work pieces with straightedges or templates to ensure conformance with specifications.
- Perform manual and semi-automatic oxyfuel cutting and plasma cutting operations required by skilled welders.
- Operate automatic CNC plasma cutting equipment.
- Apply material classifications and identifications to metal fabrication methods.
- Apply physical metallurgy oriented toward the metalworking trades.

General Education Outcomes

- Communications: Communicate with various audiences using a variety of methods as appropriate for a career and technical education program.
- Human Relations: Demonstrate interpersonal/human relations skills as appropriate for a career and technical education program.
- Computational Skills: Solve quantitative problems and interpret the solutions as appropriate for a career and technical education program.

Women's Studies Certificate

Women's Studies is an interdisciplinary field that identifies gender as one of the central organizing principles of human experience. Grounded in feminist theory and centered around feminist scholarship, Women's Studies confronts and challenges institutional, individual and ideological systems of power, privilege and inequality. Women's Studies analyzes socially constructed power imbalances based on gender, race, class, sexual identity, ability, age and other differences, allowing students profound insights into the origins of their own experience.

Because Women's Studies seeks to understand how our gendered experience affects every aspect of our lives, course topics may include: gender socialization, family, work, politics, health, sexuality, body image, violence, spirituality, art and culture. We may also discuss feminists' roles in social justice movements of the past as well as current and future trends in scholarship and activism.

Since other aspects of identity influence how individuals understand gender, we can't assume we all share the same experiences. Women's Studies creates opportunities to understand how and why we assign value to our differences and suggests strategies for resisting the power imbalances that result. By acknowledging that we don't have to be the same to be equal, Women's Studies provides a platform for exploring our differences as a potential source of strength rather than only a source of conflict. Students are encouraged to explore their relationship to individual and institutional power and to make visible the social and political forces at work. What advantages and obstacles do we each experience as a result of our socially constructed identities? Whose experience is understood as "normal" and why might it matter? What individual and communal action can we take?

Women's Studies students learn new and exciting ways to interpret the world around them, and their place within it. Most students find that their worldview undergoes profound changes as a result of taking a Women's Studies class. What new things will you notice?

Are you ready to:

- Think critically
- View popular culture in ways you've never imagined
- Gain a new self-awareness
- Transform your interpersonal relationships
- Confront our shared legacy of privilege and oppression
- Take action!

If so, Women's Studies at Clark College is ready to help you take that next step...

Women's Studies (CERT)

For students who want expertise in women's issues, this certificate may be earned along with a regular A.A. degree, and will be awarded upon graduation.

Core Courses (13 credits)

WS 101	INTRODUCTION TO WOMEN'S STUDIES	5 cr.
WS 201	WOMEN AROUND THE WORLD	3 cr.
WS 220	RACE, CLASS, GENDER AND SEXUALITY	5 cr.

Women's Studies Electives (3 credits)

WS 210	WOMEN'S CULTURE	3 cr.
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WS 280	SELECTED TOPICS	1-3 cr.
WS 290	SPECIAL PROJECTS	1-5 cr.

Additional Electives (6-8 credits)

Electives must be chosen from at least two disciplines.

ART 250	WOMEN IN ART	5 cr.
ENGL 140	WOMEN IN LITERATURE	3 cr.
HIST& 215	WOMEN IN U.S. HISTORY	5 cr.
HIST 251	WOMEN IN HIST-PREHISTORY THRU FALL OF ROME	3 cr.
HIST 252	WOMEN IN HIST-MIDDLE AGES THRU PRE-INDUST AGE	3 cr.
HIST 253	WOMEN IN HISTORY-INDUST AGE TO MODERN TIMES	3 cr.
HLTH 207	WOMEN'S HEALTH	2 cr.
SOC 230	DOMESTIC VIOLENCE	5 cr.

Total Required Credits: 22-24

World Languages (Area of Study)

Language proficiency is an important skill for more and more Americans who must compete professionally in a global economy. It is a marketable skill in such diverse fields as medicine, government, science, technology, banking, trade, industry, communications, teaching, and social work. Clark College language students apply their skills not only to employment but also to upper-division transfer studies at four-year universities.

Classes emphasize learning strategies that are necessary to communicate in the real world. Language clubs provide active support and opportunities for using the language ranging from film series and round-table discussion groups to field trips and cultural presentations.

Program Options

Students who intend to major in a world language at a four-year institution should consider two years of study in one language. Clark offers two-year programs (elementary, intermediate) in three areas:

- German
- Spanish
- Japanese

And one-year programs in:

- American Sign Language
- French

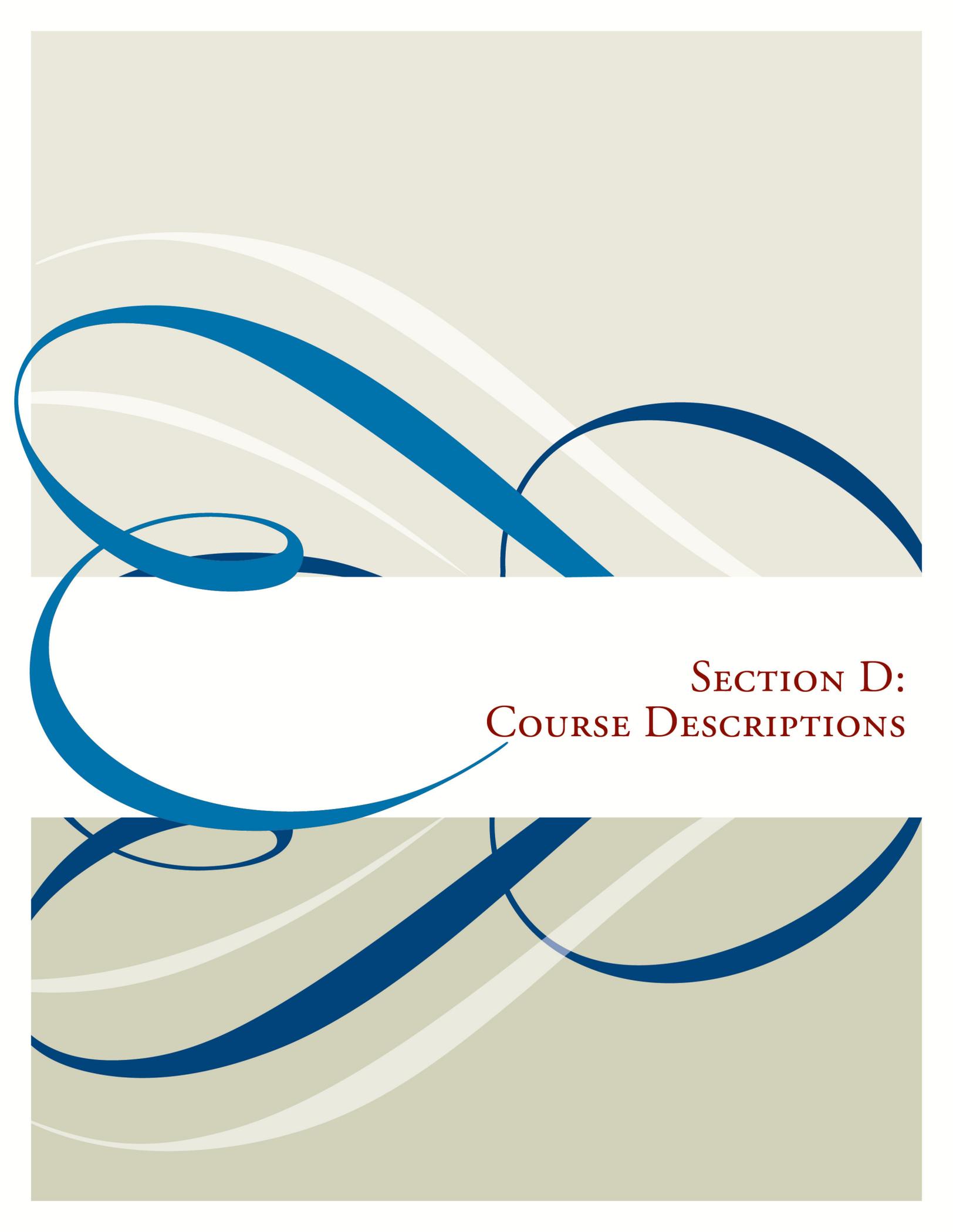
Summer Study Abroad for Language Students

The departments provide the following language and cultural opportunities:

- French Study Abroad opportunity
- German immersion/study every summer with the German Studies in Berlin program
- Spanish immersion/study at the University of Valladolid in Valladolid, Spain
- Japanese immersion/study at Tokyo Institute of Japanese in Tokyo and visiting Kyoto and Jojo

Other Study Abroad

Clark College is a member of the Washington Community College Consortium for Study Abroad (WCCCSA), which offers quarter-long programs in London, England; Paris, France; Florence, Italy; and Alajuela, Costa Rica. Contact an advisor in the International Center for more information.



SECTION D:
COURSE DESCRIPTIONS

SECTION D: Course Descriptions

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Accounting

PRINCIPLES OF ACCOUNTING I

ACCT& 201 5 Credits
55 hours of lecture

Accounting theory and practice including the entire accounting cycle and accounting for merchandising operations, receivables, current liabilities, and payroll. Formerly BUS 231. Credit not allowed for both BUS 231 and ACCT& 201. Prerequisite: Eligibility for ENGL& 101 and MATH 095 or consent of Instructional Unit. [SE]

PRINCIPLES OF ACCOUNTING II

ACCT& 202 5 Credits
55 hours of lecture

Continuation of ACCT& 201 with emphasis on payroll, partnership and corporation accounting, statement of cash flow, analysis and interpretation of financial statements, plant assets, depreciation, time value of money, long-term liabilities, and investments. Formerly BUS 232. Credit not allowed for both BUS 232 and ACCT& 202. Prerequisite: A grade of "C" or better in ACCT& 201. [SE]

PRIN OF ACCOUNTING III

ACCT& 203 5 Credits
55 hours of lecture

Continuation of ACCT& 201 with emphasis on responsibility and departmental accounting, manufacturing operations, cost accounting, budgeting and standard costs, cost-volume-profit analysis, incremental analysis and capital budgeting. Prerequisite: A grade of "C" or better in ACCT& 202. Formerly BUS 233. [SE]

Addiction Counselor Education

SURVEY OF ADDICTIONOLOGY

ACED 101 3 Credits
33 hours of lecture

Biological, psychological, and sociological theories of the use of major drugs of abuse, as well as addictive behaviors. Explores the distinction between use, abuse and addiction. For majors and non-majors. Prerequisite: ENGL& 101 (or ENGL 101). [GE, SE]

INTRODUCTION TO ADDICTIONOLOGY

ACED 105 5 Credits
55 hours of lecture

Basic theories course: effects on the body, diagnosis, treatment, and prevention of substance abuse. Emphasis on alcohol abuse and related problems in individuals and society. [GE]

INTRODUCTION TO ADDICTIONS COUNSELING SKILLS

ACED 122 3 Credits
33 hours of lecture

Application of basic counseling theories, including relapse prevention to an addiction client population. Group, individual and family counseling. Other cultures also addressed. Prerequisite: ACED 101 or CDEP 101, or consent of Instructional Unit. [GE]

GROUP COUNSELING IN ADDICTIONS

ACED 125 3 Credits
33 hours of lecture

Use of group process for modifying individual attitudes and actions. Application of group counseling theories to an addiction client population. Prerequisite: ACED 201 or CDEP 120/201, or consent of Instructional Unit. [GE]

INTRODUCTION TO COUNSELING FAMILY MEMBERS

ACED 132 3 Credits

33 hours of lecture

Knowledge and skills for working with significant persons in the addicted client's environment. Emphasis on counseling immediate family members. Prerequisite: ACED 201 or CDEP 201 (or 120). [GE]

LAW AND ETHICS IN ADDICTIONS COUNSELING

ACED 136 3 Credits

33 hours of lecture

Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP's. Legal and ethical duties in the client-counselor relationship. Prerequisite: ACED 101 or CDEP 101, or consent of Instructional Unit. [GE]

ADDICTIONS AND MENTAL ILLNESS

ACED 137 3 Credits

33 hours of lecture

Differential and dual diagnosis. Use of current edition of Diagnostic and Statistical Manual. Referral and networking with mental health professional; relapse prevention techniques; screening that includes comorbidity. Prerequisite: ACED 101 or CDEP 101 or consent of Instructional Unit. [GE]

PREVENTION AND EDUCATION IN THE COMMUNITY

ACED 138 3 Credits

33 hours of lecture

Application of the Public Health and Social Development models to prevention activities. Knowledge of community resources in developing community education and prevention programs. Prerequisite: ACED 101 or CDEP 101 or consent of Instructional Unit. [GE]

PHARMACOLOGY OF DRUGS OF ABUSE

ACED 160 3 Credits

33 hours of lecture

Pharmacological effects of alcohol and drugs on the human body and mind. Prerequisite: ENGL& 101 (or ENGL 101). [GE]

ADOLESCENT ADDICTION ASSESSMENT & TREATMENT

ACED 164 3 Credits

33 hours of lecture

An examination of adolescent development and the detrimental impact of addiction on youth development. The assessment process and treatment modalities for adolescents are presented. Prerequisite: ACED 101 and 122, or CDEP 101 and 122 or consent of Instructional Unit. [GE]

AIR- AND BLOOD-BORNE PATHOGENS

ACED 170 2 Credits

22 hours of lecture

Skills to reduce impact of air- and blood-borne pathogens on addiction clients. HIV/AIDS brief risk intervention for the addiction client population. Community resources available to clients. [GE]

THEORIES OF COUNSELING

ACED 201 3 Credits

33 hours of lecture

Introduces the major counseling theories and techniques focusing on individual counseling within a Human Services framework. Students are encouraged to develop a counseling orientation based on these theories which include their own personal and professional ethical orientation. For majors and non-majors. Prerequisite: ACED 101 or CDEP 101 and PSYC 101, or consent of Instructional Unit. [GE]

MULTI-CULTURAL ADDICTIONS COUNSELING

ACED 202

3 Credits

33 hours of lecture

Culturally learned assumptions that shape a counseling interview. Culture as the heart of any counseling relationship. The impact of culture on treatment planning with an addiction client population. Prerequisite: ACED 122 or CDEP 122 and ACED 201 or CDEP 120/201. [GE]

CASE MANAGEMENT IN ADDICTION MEDICINE

ACED 203

3 Credits

33 hours of lecture

Requirements for managing cases in treatment clinics: treatment and aftercare plans, notes, testing, preparation of accurate reports and other documents, confidentiality, and advocacy. ASAM criteria and treatment. Prerequisite: ACED 201 or CDEP 120/201, and ACED 122 or CDEP 122, or consent of Instructional Unit. [GE]

ADVANCED TECHNIQUES FOR ADDICTION COUNSEL

ACED 205

3 Credits

33 hours of lecture

Development of skills needed to establish and maintain effective helping relationships with clients. Integration of relapse prevention counseling in treatment. Prerequisite: ACED 101 or CDEP 101, ACED 201 or CDEP 120/201, ACED 122 or CDEP 122. [GE]

FIELD PLACEMENT I

ACED 210

6 Credits

198 hours of clinical

Twenty hours weekly of on-the-job supervised experience applying counseling theories and practices. Addiction Counselor Competencies are used as a framework for assessment. Prerequisite: 30 hours of ACED or CDEP courses including ACED 136 or CDEP 135 and aced 122, possession of the WA state CDPT credential and instructor's permission. [GE]

FIELD PLACEMENT II

ACED 211

6 Credits

198 hours of clinical

Twenty hours weekly of on-the-job supervised experience. Applying counseling theories and practices. Addiction Counselor Competencies will be used as a framework for assessment. Prerequisite: Grade of "C" or better in ACED 210 or CDEP 210 and instructor's permission. [GE]

SELECTED TOPICS

ACED 280

1 - 3 Credits

33 hours of lecture

Special topics in chemical dependence as listed in the quarterly class schedule. May be repeated for credit. Prerequisite: ENGL 101. [GE]

SPECIAL PROJECTS

ACED 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the instructional unit. Prerequisite: Consent of Instructional Unit. [GE]

Adult Basic Education

EDUCATIONAL INTERVIEWING

ABE 003

1 - 3 Credits

33 hours of lecture

An intake class that assesses new students in basic skills levels and learning styles, identifies barriers to student success, and helps student understand Clark College and Basic Education.

ABE I-BEST EDUCATIONAL INTERVIEWING

ABE 004

1 Credits

11 hours of lecture

Assessment of new students in basic skills levels and learning styles. Topics include identifying barriers to student success, and helping students understand Clark College and I-BEST integrated instruction programs.

ADULT BASIC EDUCATION SPECIAL TOPICS

ABE 005

1 - 10 Credits

88 hours of lecture

44 hours of lab

Monthly seminars conducted by various college and local professionals for the purpose of enhancing the social, personal, and academic skills of the ABE student participant.

ABE PROJECT BASED LEARNING

ABE 006

6 Credits

66 hours of lecture

Developing Basic Skills in mathematics, science, social studies, reading, and writing, based on the Washington State Learning Standards, while learning in a multi-level, multi-subject classroom explore real-world problems and challenges. Focus on developing confidence and self-direction with both team-based and independent work and understanding the social and professional skills necessary for working in the field, such as interacting in working groups, making compromises, and being dependable. Prerequisites: ABE Educational Interviewing.

ABE WRITING FUNDAMENTALS A

ABE 012

1 - 6 Credits

66 hours of lecture

Practice writing simple, compound and some complex sentences to accomplish life purposes in structured writing activities in a range of familiar settings. Practice organizing information and sentences with correct word order to complete simple forms, notes, letters, and paragraphs. Practice spelling common everyday and significant personal words and using correct capitalization, punctuation, and subject-verb agreement for simple verb tenses. Practice proofreading and editing writing using writing aids, (checklists, dictionaries, etc.). Prerequisite: Appropriate CA-SAS score.

ABE WRITING FUNDAMENTALS B

ABE 014

1 - 6 Credits

66 hours of lecture

Practice writing one to five understandable and well-constructed paragraphs easily and with few errors to independently accomplish well-defined and structured writing activities for varied reasons (such as for personal expression, to inform, to persuade or to complete a task) and for audiences in a range of comfortable and familiar settings.

ADULT BASIC EDUCATION MATH I

ABE 021

1 - 6 Credits

66 hours of lecture

Practice recalling and using a few simple mathematical procedures such as very basic estimating, counting, sorting, ordering, grouping, adding and subtracting numbers up to three digits, and beginning multiplication of 2s, 5s, and 10s. Practice reading, writing, and interpreting simple benchmark fractions ($1/2$, $1/4$), common monetary values, mathematical relationships (more, less, etc.), high frequency measurement (months, days, etc.), concepts of length and width, interpret simple charts and graphs, and communicate solutions to math tasks. Prerequisite: Entry level students with appropriate scaled CASAS placement scores.

ADULT BASIC EDUCATION MATH II

ABE 022

1 - 6 Credits

66 hours of lecture

Building skills for evaluating solutions, adding and subtracting whole numbers through three digits, multiplying and dividing three digits numbers by one digit numbers, recall/use mathematical procedures such as estimating, counting, sorting, grouping, and measuring length and weight using calibrated instruments (rulers, scales). Practice reading, writing, and interpreting simple benchmark fractions and percents ($1/2$, $1/4$, 50%), common monetary

values, simple proportions (2:1), very simple data in charts and graphs, and communicate solutions to math related tasks. Prerequisite: ABE MATH 021 or appropriate scaled CASAS placement score.

ADULT BASIC EDUCATION MATHEMATICS III

ABE 023

1 - 6 Credits

66 hours of lecture

Building skills to read, write, interpret, and use mathematical information and procedures for life purposes. Concepts and skills include: computing with whole numbers; converting and using benchmark fractions, decimals and percents (halves, quarters, tenths); determining simple patterns and proportions (4:1, etc); grouping, comparing, estimating numbers; using calibrated tools with benchmark units to measure; determining the area of common geometric shapes; selecting and organizing data into simple graphic arrangements; and communicating problem-solving strategies. Prerequisite: ABE MATH 022 or appropriate CASAS placement score.

ADULT BASIC EDUCATION MATHEMATICS IV

ABE 024

1 - 6 Credits

66 hours of lecture

Building skills to read, write, interpret, and apply a variety of mathematical information such as the following: monetary values, extensions of benchmark fractions (1/8, 1/3, 1/5, etc.), decimals, and percents (15%, 30%, etc.), patterns and simple formulas (such as $d=rt$, $A=lw$), standard units of measurement including fractional units and benchmark angle measurements (90 degrees, 360 degrees, etc), geometric shapes, a combination of common shapes, concept of pi, converting between units of measurement, and ways to interpret and represent data (graphs). Prerequisite: ABE MATH 023 or appropriate CASAS placement score.

ABE READING FUNDAMENTALS A

ABE 032

1 - 6 Credits

66 hours of lecture

Building skills in the four components of skilled reading: alphabets, vocabulary, fluency, and comprehension. Students will recognize common everyday words and practice print-sound correspondence to decode simple texts. Developing simple strategies to increase vocabulary. Activities include reading simple texts accurately with appropriate phrasing and rates; practicing comprehension strategies to understand simplified informational and literary texts and connect the knowledge to personal experiences. Prerequisite: Appropriate CASAS score.

ABE READING FUNDAMENTALS B

ABE 034

1 - 6 Credits

66 hours of lecture

Developing skills in the 4 components of skilled reading: alphabets, vocabulary, fluency, and comprehension. Skills include decoding and recognizing common syllable patterns and developing strategies to increase vocabulary. Activities include reading intermediate texts accurately with appropriate phrasing and rates; practicing a variety of comprehension strategies for different reading purposes and various types of texts; analyzing and evaluating information in connection with previous knowledge in a range of informational and literary texts. Prerequisite: ABE 032 or appropriate CASAS score.

BASIC COMPUTER LITERACY AND KEYBOARDING

ABE 036

1 - 2 Credits

44 hours of lab

Introduction to keyboarding development, computer terminology, use of software and word processing. Concurrent enrollment in ABE or ESL Level IV or above required.

ABE LANGUAGE ARTS I

ABE 041

1 - 6 Credits

66 hours of lecture

Skills for decoding and recognizing all of the letters of the alphabet and everyday words and word groups in short, simple texts by breaking words into parts, and applying pronunciation rules (decoding letter-sound correspondence, isolating first and last sounds, etc.). Activities include appropriately using everyday, high frequency vocabulary to produce a few sentences on a familiar topic with minimal attention to audience, recalling prior knowledge to assist in understanding information in the text students read/write, and making a few simple edits of handwriting,

spelling, punctuation, and capitalization based on review and feedback from others. Prerequisite: Appropriate CASAS scores.

ADULT BASIC EDUCATION LANGUAGE ARTS II

ABE 042

6 Credits

66 hours of lecture

Skills for learning to decode and recognize common/some unfamiliar words in short text, for demonstrating familiarity with simple, everyday content knowledge and vocabulary, for locating important information in simplified text, and for monitoring/enhancing reading comprehension. Skills for determining the purpose and audience for student writing, for following a highly-structured plan to organize ideas in order to support a single purpose and for producing a legible and comprehensible draft. Skills for appropriately using familiar vocabulary, and demonstrating beginning attention to revision strategies in order to make basic edits of grammar and syntax based on feedback from others. Prerequisite: ABE Language Arts II requires Language Arts I completion or the appropriate CASAS reading score upon entrance to the program.

ADULT BASIC EDUCATION LANGUAGE ARTS III

ABE 043

1 - 6 Credits

66 hours of lecture

Practice writing simple, compound, and some complex sentences to construct simple paragraphs to accomplish well-defined and structured writing activities for varied life purposes. Skills for simple planning and editing strategies including generating and organizing ideas and proofreading for simple writing conventions in grammar, spelling, punctuation, and sentence structure. Skills for reading and comprehending most everyday words and some specialized vocabulary, adjust their reading pace, and use various comprehension strategies to accomplish well-defined activities in short to medium length texts in literature, science, and social studies. Prerequisite: Completion of Language Arts 042 or the appropriate reading/writing score on entrance to the program.

ADULT BASIC EDUCATION LANGUAGE ARTS IV

ABE 044

1 - 6 Credits

66 hours of lecture

Practicing the steps in writing a few well-constructed and connected paragraphs to independently accomplish well-defined and structured writing activities for varied purposes. Practicing multiple writing and pre-writing strategies with everyday and specialized vocabulary in science, social studies, and literature. Practicing revision and editing strategies which include mechanics, grammar, and usage. Practice reading and comprehending a variety of texts to establish an appropriate pace and good comprehension for reading and writing in science, social studies, and literature. Prerequisite: Completion of Language Arts 043 or the appropriate reading/writing score on entrance to the program.

I-BEST SUPPORT

ABE 071

1 - 6 Credits

66 hours of lecture

Additional instruction and support for student success in I-BEST designated classes. Review of important concepts and vocabulary introduced during I-BEST classes. Skills to communicate clearly and accurately using vocabulary and expressions commonly used in the I-BEST work place and job search environment. Activities to strengthen basic skills while studying in an I-BEST program. Students must be concurrently enrolled in an I-BEST designated class. Prerequisite: Admission into an I-BEST program.

Agriculture

COMPUTERS IN HORTICULTURE

AG 086

3 Credits

11 hours of lecture

44 hours of lab

Introduction to a wide variety of computer software and how it relates to site planning and other areas within the horticulture field. Students learn how to use the software through the research and knowledge gained from field studies, speakers, and/or visits to local city and county offices. Skills learned in this class help the student make logical decisions when designing a landscape and in using computer technology available to them.

PLANT IDENTIFICATION

AG 106 5 Credits
44 hours of lecture 22 hours of lab
Practice and methods used by florists in house plant care and identification. Common names of plants sold in retail flower shops and greenhouses. Planting dish gardens and terrariums. [GE]

FIELD STUDIES IN HORTICULTURE

AG 108 1 - 4 Credits
11 hours of lecture 66 hours of lab
Design and maintenance of various gardens, examination of comprehensive plant collections. Prerequisite: AG 130 or consent of Instructional Unit. [GE]

INTRODUCTION TO HORTICULTURE

AG 130 5 Credits
55 hours of lecture 44 hours of lab
Vegetable and fruit crops, ornamentals, landscape and horticulture practices, controls, maintenance, basic plant science, growth and development. Field trips required. [GE]

DECIDUOUS LANDSCAPE PLANT IDENTIFICATION

AG 135 5 Credits
44 hours of lecture 22 hours of lab
Deciduous plant materials. Identification, environmental requirements, growth habits, usage, maintenance and basic problems of ornamental plant materials: trees, shrubs, vines and ground covers. [GE]

EVERGREEN LANDSCAPE PLANT IDENTIFICATION

AG 136 5 Credits
44 hours of lecture 22 hours of lab
Evergreen plant materials. Identification, environmental requirements, growth habits, usage, maintenance and basic problems of ornamental plant materials: trees, shrubs, vines and ground covers. Prerequisite: AG 135 or consent of Instructional Unit. [GE]

FLOWERING LANDSCAPE PLANTS

AG 137 5 Credits
44 hours of lecture 22 hours of lab
Identification, environmental requirements, growth habits, and landscape use of colorful local flowering trees and shrubs: rhododendrons and azaleas, popular annual and perennial flowers, flowering vines and ground covers. [GE]

PLANT PROPAGATION

AG 140 5 Credits
55 hours of lecture 44 hours of lab
Sexual and asexual plant reproduction. Seed and cutting production of foliage plants and woody ornamentals. Grafting techniques. Field trips required. Prerequisite: AG 130 or consent of Instructional Unit. [GE]

GREENHOUSE MANAGEMENT

AG 150 5 Credits
55 hours of lecture 22 hours of lab
Greenhouse management skills. Production of greenhouse potted flowering and foliage plants and winter bedding crops. Greenhouse design, materials, crop scheduling and environmental control. Field trips required. Prerequisite: AG 130 or consent of Instructional Unit. [GE]

NURSERY OPERATIONS

AG 155 5 Credits
55 hours of lecture 44 hours of lab
Buildings, growing structures, equipment, and operations in the wholesale and retail nursery business. Planning, planting schedules, growing and marketing of container and field-grown nursery stock and bedding plants. Students will operate a nursery. Field trips required. Prerequisite: AG 130 or consent of Instructional Unit. [GE]

ANIMAL SCIENCE

AG 175 5 Credits
55 hours of lecture 66 hours of lab

Introduction to biological concepts including cellular basis of life, growth and development, genetics, reproduction, nutrition, and disease. Topics will be introduced using domestic animals as examples. This course is intended for nonscience majors and fulfills laboratory science requirements. It is also appropriate for science majors considering related careers, such as veterinary medicine. Concurrent enrollment in lab. Credit not allowed for both BIOL 104 and AG/BIOL 175. [NS]

FRUIT AND VEGETABLE CROPS

AG 185 5 Credits
55 hours of lecture 44 hours of lab

Fruit and vegetable crops grown in Southwestern Washington. Standard varieties planting, environmental requirements, pests, cultural practices, harvesting, storage and marketing. Field trips may be required. Prerequisite: AG 130 or consent of Instructional Unit. [GE]

COOPERATIVE WORK EXPERIENCE

AG 199 1 - 5 Credits
165 hours of clinical

Supervised work experience in landscaping, grounds maintenance, greenhouse production or nursery stock production, etc. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in HDEV 195, 198 or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

SOILS

AG 200 5 Credits
55 hours of lecture 44 hours of lab

Properties of soils, their origin, development and classification. Application of soil management with appropriate laboratory experience. [GE]

TURF MANAGEMENT AND MAINTENANCE

AG 205 5 Credits
55 hours of lecture 44 hours of lab

Turf establishment for home lawns, golf course greens and parks. Seeding, sodding, disease, fertilizer programs, insect problems and controls and maintenance. Field trips may be required. [GE]

LANDSCAPE DESIGN

AG 210 5 Credits
55 hours of lecture 44 hours of lab

Planning and design of landscape materials in residential and commercial properties. Prerequisite: AG 135, 136, 137, or consent of Instructional Unit. [GE]

COMPUTERIZED LANDSCAPE DESIGN

AG 211 5 Credits
33 hours of lecture 44 hours of lab

Introduction to Landscape Design using computer aided design programs, including Design Ware, PhotoShop and PowerPoint. Use of color, texture, direction, line and shape in the design process is also covered. Prerequisite: A grade of "C" or better in AG 086 or consent of Instructional Unit. [GE]

COMPUTERIZED LANDSCAPE DRAFTING

AG 212 5 Credits
33 hours of lecture 44 hours of lab

Introduction to computer-aided landscape drafting using LandCADD and/or AutoCAD software. Students learn basic landscape design principles in order to draft aerial views and incorporate irrigation systems. Topics include drafting techniques for base plans, site plans and landscape plans, as well as the ability to prepare presentations to show clients. Prerequisite: A grade of "C" or better in AG 086 or consent of Instructional Unit. [GE]

LANDSCAPE MAINTENANCE

AG 220 5 Credits
44 hours of lecture 22 hours of lab
Pruning, grooming, and maintaining landscape trees and shrubs. Cultural operations in annual and perennial flower beds and ground covers. Weed and pest control. Practices, care and use of pruning and hand tools. Business practices in maintenance operations and scheduling. Prerequisite: AG 135 or consent of Instructional Unit. [GE]

IRRIGATION MANAGEMENT

AG 240 5 Credits
44 hours of lecture 44 hours of lab
Installation and mechanization of irrigation systems for landscape of commercial and residential sites. Drip irrigation. Field trips may be required. Prerequisite: AG 130 or consent of Instructional Unit. [GE]

BACKFLOW PREVENTION IRRIGATION

AG 241 5 Credits
55 hours of lecture 44 hours of lab
Approved backflow protection, repair, maintenance, state plumbing codes, installation, test procedures, safety requirements, and upcoming events/knowledge. [GE]

LANDSCAPE INSTALLATION

AG 250 5 Credits
44 hours of lecture 44 hours of lab
Reading and interpreting landscape drawings, grading, leveling and soil preparation. Construction of decks, fences, walkways and other landscape features. Students will work on class and/or individual landscape projects. Field trips may be required. Prerequisite: AG 210 or consent of Instructional Unit. [GE]

TISSUE CULTURE

AG 255 2 Credits
11 hours of lecture 22 hours of lab
Introduction to tissue culturing: history and botanical basis for tissue culture, preparing media, and media formulas and tissue culture techniques. [GE]

ENVIRONMENTAL MANAGEMENT

AG 260 5 Credits
44 hours of lecture 44 hours of lab
Identification of insects, diseases and miscellaneous pests and weeds in ornamentals, vegetable, fruit and greenhouse crops in Western Washington/Oregon. Controls for agricultural plant pests, insecticides, fungicides, herbicides, and soil fumigants. Preparation for public and commercial licenses. Current EPA standards, restrictions and regulations of chemical use. Prerequisite: AG 130 or consent of Instructional Unit. [GE]

SPECIAL PROJECTS

AG 290 1 - 5 Credits
Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

American Sign Language

AM SIGN LANGUAGE I

ASL& 121 5 Credits
55 hours of lecture
Introduction to American Sign Language emphasizing instruction and practice in expressive and receptive ASL skills. Focus on basic vocabulary, grammar, and cultural aspects of the deaf community. [SE, HA]

AM SIGN LANGUAGE II

ASL& 122

5 Credits

55 hours of lecture

Continuation of ASL I, developing skills for the student with a basic knowledge of ASL. Focus on grammar, idioms, vocabulary building, culture and language. Prerequisite: ASL& 121 or consent of the instructor. [SE, HA]

AM SIGN LANGUAGE III

ASL& 123

5 Credits

55 hours of lecture

Continuation of ASL II, developing grammar and vocabulary skills, with emphasis on students expressive and receptive skills. Topics include abstract concepts of language and the deaf culture's values, attitudes, and community. Prerequisite: ASL& 122 or consent of the instructor. [SE, HA]

AMERICAN SIGN LANGUAGE IV

ASL& 221

5 Credits

55 hours of lecture

First of the second-year sequence in studying the language of Deaf Americans. Topics include developing receptive and expressive skill and fluency; correct formation of signs, movement, rhythm, phrasing and clarity; vocabulary building; developing proficiency in ASL grammar. Students will develop a respect for ASL as a language, including acceptance and appreciation of its diverse regional and personal applications within its culture. Prerequisite: A grade of "C" or better in ASL& 123, demonstrated equivalent proficiency, or with permission of the instructor. [SE, HA]

AMERICAN SIGN LANGUAGE V

ASL& 222

5 Credits

55 hours of lecture

Second of second-year sequence in studying the language of Deaf Americans. Topics include developing receptive and expressive skills in dialogue; applying ASL informal discourse styles; vocabulary building; developing proficiency in ASL grammar for recreation, social services, government and the workplace. Students will develop a respect for ASL as a language, including acceptance and appreciation of its diverse regional and personal applications within its culture. Prerequisite: A grade of "C" or better in ASL& 221, demonstrated equivalent proficiency, or with permission of the instructor. [SE, HA]

AMERICAN SIGN LANGUAGE VI

ASL& 223

5 Credits

55 hours of lecture

Third of second-year sequence in studying the language of Deaf Americans. Continuing development of receptive and expressive skills and fluency. Emphasis on increasing vocabulary, classifier, phrases and grammatical usage with a decrease dependency on English syntax structure. Students will be able to initiate and converse in topics such as technical fields of work, college level academic subjects, politics, and religion with consistent grammatical accuracy with native ASL users. Prerequisite: A grade of "C" or better in ASL& 222, demonstrated equivalent proficiency, or with permission of the instructor. [SE, HA]

SPECIAL PROJECTS

ASL 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit.

Anthropology

INTRODUCTION TO ARCHAEOLOGY

ANTH& 204

5 Credits

55 hours of lecture

Study of ancient and prehistoric cultures of the world. Introduction to theories and techniques of archaeological investigation. Formerly ANTH 102. [SE,SS]

INTRODUCTION TO CULTURAL ANTHROPOLOGY

ANTH& 206

5 Credits

55 hours of lecture

The concept of culture, a study of cultures directed toward a broad understanding of how people view their world, cope with their environments, and organize their lives. Formerly ANTH 103. [SE, SS]

BIOANTHROPOLOGY

ANTH& 215

5 Credits

44 hours of lecture

22 hours of lab

The biological study of human beings and primates, past and present: human genetics, biological adaptation and variation, evolutionary principles, the primate order, human origins, and applied biological anthropology. Fulfills social science or laboratory science (lab) distribution credit. Formerly ANTH 101. [SE, SS, NS]

SELECTED TOPICS

ANTH 280

1 - 3 Credits

33 hours of lecture

Varying topics for anthropology as listed in the quarterly class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS

ANTH 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [SE]

Art

DRAWING I

ART 103

3 Credits

22 hours of lecture

22 hours of lab

Using line and shape effectively. Contour line and gesture. Emphasis on expressive content and accurate seeing. [HB, SE]

DRAWING II

ART 104

3 Credits

22 hours of lecture

22 hours of lab

Continuation of ART 103. Analysis and control of value, texture and color using a variety of techniques and drawing materials. Emphasis on accurate seeing. Prerequisite: ART 103. [HB, SE]

DRAWING III

ART 105

3 Credits

22 hours of lecture

22 hours of lab

Continuation of ART 104. Creative, critical-analytical, and historic approaches to composition in a variety of media. Prerequisite: ART 104. [HB, SE]

CREATIVITY AND CONCEPT

ART 110

3 Credits

22 hours of lecture

22 hours of lab

Introduction to creativity, conceptual thinking, and visual problem solving for artists, designers and other creative professionals. Focus on strategies and methods for developing original ideas such as brainstorming, sketching, automatic writing, etc; then translating those ideas to visual form using a variety of media and techniques. Hands-on studio activities contextualized by theoretical readings and in-class discussions. [HB, SE]

TWO-DIMENSIONAL DESIGN

ART 115

4 Credits

22 hours of lecture

44 hours of lab

Foundation art course working with line, shape, value, texture and the principles of spatial organization. May include designing with computers. [HB, SE]

COLOR THEORY AND DESIGN

ART 116 4 Credits
22 hours of lecture 44 hours of lab
Continuation of ART 115. Color theory and the application of color to specific design problems. Includes designing with computers. Prerequisite: ART 115. [HB, SE]

THREE-DIMENSIONAL DESIGN

ART 117 4 Credits
22 hours of lecture 44 hours of lab
Introduction to sculptural design concepts including volume, space and scale. Explores a variety of media and construction techniques, with a focus on creative problem solving in the context of sculptural objects. [HB, SE]

TIME-BASED ART AND DESIGN

ART 118 3 Credits
22 hours of lecture 22 hours of lab
Introduction of concepts and tools for the design of art to explore the transaction between people, objects and situations over time. Exploring the personal, cultural, formal, political, and historical aspects of the medium through readings, writings and critical reflection of relevant 20th and 21st century artworks, as well as the principles and aesthetics of moving imagery including timing, pacing, repetition, editing, composition, process and the link between sound and image. Activities include class discussions, software and equipment tutorials and studio time for experimental project development. [HA, SE]

PHOTOGRAPHIC STORYTELLING

ART 131 3 Credits
22 hours of lecture 22 hours of lab
Introduction to photographic storytelling. Topics include: examining historical use of the medium, analysis of narrative photographic genres, and the creation of a personal photographic essay. Emphasis placed on seeing photographically and creating narrative. Includes field trip. Appropriate for non-majors and beginning photo students. Previous camera experience helpful, but not required. Student must provide digital camera. [HA, SE]

PHOTOGRAPHY I

ART 140 4 Credits
22 hours of lecture 44 hours of lab
Basic camera handling and darkroom procedures, metering, film processing, printing, and learning to see photographically. All work in black-and-white. Student must provide manual 35mm camera. A limited number of cameras are available for checkout in the Art Department. [HB, SE]

PHOTOGRAPHY II

ART 141 4 Credits
22 hours of lecture 44 hours of lab
Continuation of ART 140. Special darkroom and studio techniques. Introduction to the 4x5 and to computer manipulation of photographs. Particular emphasis on self-expression and print quality. Includes field trips to local galleries. Prerequisite: ART 140 or equivalent or consent of Instructional Unit. [HB, SE]

PHOTOGRAPHY III

ART 142 4 Credits
22 hours of lecture 44 hours of lab
Continuation of ART 141. Opportunities to develop additional technical skill and continued exploration of self-expression. Prerequisite: ART 141 or equivalent. [HB, SE]

DIGITAL PHOTOGRAPHY I

ART 145 3 Credits
22 hours of lecture 22 hours of lab
Introduction to digital camera operation, image manipulation software use, seeing skills development, and expressive sensitivity. Special emphasis on the elements and principles of photographic composition, ethical issues, aesthetic vocabulary, and the study of how images communicate. Includes lecture, supervised lab, and group critiques.

Familiarity with Adobe Photoshop and Macintosh platform recommended. Students must provide digital camera; a limited number of digital cameras are available for student checkout in the Art Department. [HB, SE]

DIGITAL PHOTOGRAPHY II

ART 146 4 Credits
22 hours of lecture 44 hours of lab

Digital imagery as self-expression. Refining technical skills, exploring the unique opportunities of the digital medium, and examining current trends via field trips and critiques. Practicing effective small group discussion to demonstrate visual literacy. Prerequisite: ART 145 or both ART 140 and GRCP 120, or consent of instructional unit. [HB, SE]

ART APPRECIATION

ART 151 3 Credits
33 hours of lecture

The visual arts with which we come in contact every day. Ways contemporary and historic creative expression influence present day living and thinking. Personal contact with many art forms. Some hands-on experience. Especially for non-majors. [HA, SE]

GRAPHIC DESIGN EXPLORATION

ART 172 4 Credits
22 hours of lecture 44 hours of lab

Theoretical survey of Graphic Design and its cultural and historical context. Intended for both non-majors and pre-majors; focus on how Graphic Design functions as a mode of visual communication and its role in society, as well as exploring Graphic Design as a possible career. [HA, SE]

GRAPHIC DESIGN STUDIO I

ART 173 4 Credits
22 hours of lecture 44 hours of lab

Introduction to the elements and principles of graphic design and the design process through a series of hands-on projects stressing visual literacy, unity of form and utilizing common tools of the trade, including computers. Prerequisite: A grade of "C" or better in ART 115, 172 and CGT 100. [HB, SE]

TYPOGRAPHY

ART 174 4 Credits
22 hours of lecture 44 hours of lab

Typography and its application in graphic design projects. Topics include the history and classification of typeface; choosing and combining fonts; typesetting on the computer, including issues of legibility, readability and spacing, and the creation of original letterforms. Working knowledge of Mac OS and Adobe software is recommended. Offered as the second of three courses in graphic design: Art 173, 174, 175. [HB, SE]

CERAMICS I: POTTERY

ART 180 4 Credits
22 hours of lecture 44 hours of lab

Working with clay. Hand-building techniques of pinch, coil, slab and press mold. Introduction to the potter's wheel. Basic glazing techniques. [HB, SE]

CERAMICS II: POTTERY

ART 181 4 Credits
22 hours of lecture 44 hours of lab

Potter's wheel techniques of centering and throwing a variety of shapes, attaching handles and spouts, and fitting lids. Optional advanced hand-building assignments offered. Introduction to kiln stacking and firing. Prerequisite: ART 180. [HB, SE]

CERAMICS III: POTTERY

ART 182 4 Credits
22 hours of lecture 44 hours of lab
Combining hand and wheel techniques to create original pieces as sculpture or for specific functions. Mold making, slip casting, underglazing, and kiln firing. Prerequisite: ART 181. [HB, SE]

METAL ARTS I

ART 189 3 Credits
11 hours of lecture 44 hours of lab
Aesthetic expression within the context of applied design using metal. Design and technical skills will be equally emphasized. Fabrication and design of jewelry and other objects of metal. History of the fabrication of metal objects in other cultures. [HB, SE]

METAL ARTS II

ART 190 3 Credits
11 hours of lecture 44 hours of lab
Continuation of ART 189. Design and technical skills in the raising and forming of metal vessels. Development of metal arts in Europe from the Middle Ages to the present. Prerequisite: ART 189. [HB, SE]

METAL ARTS III

ART 191 3 Credits
11 hours of lecture 44 hours of lab
Continuation of ART 190. Design and technical skills applied to casting and forging of metal objects. Overview of contemporary metal artists and their work. Prerequisite: ART 190. [HB, SE]

COOPERATIVE WORK EXPERIENCE

ART 199 1 - 5 Credits
165 hours of clinical
Supervised work experience in art or photography. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

THE HUMAN FIGURE I

ART 203 4 Credits
22 hours of lecture 44 hours of lab
Working from the male and female form in media already familiar to the student. Emphasis on accurate seeing. Prerequisite: ART 103 or consent of Instructional Unit. [HB, SE]

THE HUMAN FIGURE II

ART 204 4 Credits
22 hours of lecture 44 hours of lab
Working from the male and female form in media already familiar to the student. Emphasis on expressive power and individual development. Prerequisite: ART 203. [HB, SE]

DIGITAL ILLUSTRATION

ART 208 4 Credits
22 hours of lecture 44 hours of lab
Developing digital illustration skills by using Adobe software with a focus on developing a personal voice, and exploring various styles and techniques. Activities include a series of hands-on creative projects. Prerequisite: A grade of "C" or better in ART 103, 110 and CGT 100. [HB, SE]

PORTFOLIO DEVELOPMENT

ART 215 3 Credits
22 hours of lecture 22 hours of lab
Preparation and presentation of individual portfolio for submission to potential employers, galleries and educational institutions. Topics include traditional and digital portfolio formats, photographing, writing, critiquing, and

speaking about artwork. Activities include selecting, refining, and incorporating projects from the entire program into portfolios. Instructors play advisory role, culminating with formal portfolio reviews by instructors, peers, and industry professionals. Prerequisite: Consent of Instructional Unit. [SE]

ART HISTORY: ANCIENT TO LATE ANTIQUE

ART 220

5 Credits

55 hours of lecture

Survey of visual arts in the Mediterranean, the Near East, and in Northern Europe, covering the first arts of ancient humans through the Late Antique, 40,000 BCE-600 CE. Topics include why art and architecture exist and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [HA, SE]

ART HISTORY: MEDIEVAL-RENAISSANCE

ART 221

5 Credits

55 hours of lecture

Survey of visual arts and architecture of Early Medieval through Late Renaissance Europe. 500-1600 CE. Topics include why art and architecture exist and how they function in society, how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture, how art and architecture achieve their effects, using materials, technique, style, and composition. [HA, SE]

ART HISTORY: BAROQUE-MODERN

ART 222

5 Credits

55 hours of lecture

Survey of the visual arts and architecture of Baroque through Modern Europe, ca. 1600-1914 CE. Topics include why art and architecture exist, and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [HA, SE]

ART IN THE TWENTIETH CENTURY

ART 223

5 Credits

55 hours of lecture

Survey of the visual arts and architecture of the Modern and Post-modern Periods, 1900-Present. Topics include why art and architecture exist, and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [HA, SE]

ART HISTORY: ASIAN ART

ART 225

5 Credits

55 hours of lecture

Survey of the visual arts and architecture of India, China, and Japan. Topics include why art and architecture exist, and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [HA, SE]

TOPICS IN NON-WESTERN ART

ART 226

1 - 9 Credits

99 hours of lecture

Survey of the visual arts and architecture of a selected non-western culture. Topics include why art and architecture exist, and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. Repeatable for up to 9 variable credits. [HA, SE]

WOMEN IN ART

ART 250 5 Credits
55 hours of lecture

Historical survey exploring themes in women's art and challenges women artists faced as professionals within their respective cultures; in-depth study of women artists working in Western traditions. [HA, SE]

PAINTING I

ART 257 4 Credits
22 hours of lecture 44 hours of lab

Introduction to materials and methods of oil and/or acrylic painting. Includes color theory, canvas stretching, and painting from still-life and portrait. Prerequisite: ART 103. [HB, SE]

PAINTING II

ART 258 4 Credits
22 hours of lecture 44 hours of lab

Continued work with acrylic and oil painting. Emphasis on line, color and pattern as expressive elements. Weekly group discussions. Prerequisite: ART 257. [HB, SE]

PAINTING III

ART 259 4 Credits
22 hours of lecture 44 hours of lab

Continuation of ART 258. Continued development of problem-solving techniques related to composition and a variety of subjects. Prerequisite: ART 258. [HB, SE]

WATERCOLOR I

ART 260 4 Credits
22 hours of lecture 44 hours of lab

Introduction to materials and methods of watercolor painting techniques. Topics include color theory, vocabulary, and composition; working in realistic and abstract styles. Activities include in-class critique and discussion. Prerequisite: ART 260. [HB, SE]

WATERCOLOR II

ART 261 4 Credits
22 hours of lecture 44 hours of lab

Intermediate level exploration of watercolor painting. Continued development of skills in color mixing and composition with an emphasis on fostering content and a personal creative voice through the material. Activities include in-class critique and discussion. Prerequisite: ART 260. [HB, SE]

WATERCOLOR III

ART 262 4 Credits
22 hours of lecture 44 hours of lab

Advanced level exploration of watercolor painting, with emphasis on developing one's own visual language through the material, experimentation and innovation with wet media and its expressive potential; student-initiated research and the creation of a unique body of work suitable for portfolio presentation. Activities include in-class critique and discussion. Prerequisite: ART 261. [HB, SE]

PUBLICATION PRODUCTION

ART 270 1 - 9 Credits
66 hours of lecture 66 hours of lab

Design and production skills for publications, intended for Phoenix staff, graphic design students and others interested in the publications field. Topics include: Adobe InDesign for layout, preparing for printing, editing, proofing, creating promotional materials, working with printers, budgeting, managing the project and working with a team. Includes field trip. Prerequisite: Consent of Instructional Unit. [HB, SE]

PUBLICATION DESIGN

ART 271 4 Credits
22 hours of lecture 44 hours of lab

Graphic design principles as applied to the discipline of editorial publications. Topics include an exploration of publication formats, designing for target audience groups, page layout, adapting material for online delivery, and culminates with an individual book project with a heavy emphasis on interpreting original content into sequential visual form. Course may be taken concurrently with ART 270 Publication Production. Prerequisite: A grade of "C" or better in ART 174. [HB, SE]

GRAPHIC DESIGN STUDIO II

ART 273 4 Credits
22 hours of lecture 44 hours of lab

Continuation of ART 173 with focus on layout, composition, messaging, technical considerations and functional constraints for various types of communication design disciplines such as editorial design, advertising and persuasive design, branding and identity. Topics include ethical considerations related to graphic design such as sustainability, public service, consumerism, global diversity and copyright issues. Prerequisite: A grade of "C" or better in ART 115, 172 and CGT 100. [HB, SE]

GRAPHIC DESIGN STUDIO III

ART 274 4 Credits
22 hours of lecture 44 hours of lab

Third of three applied-design studio courses, with focus on longer-term projects based on real-world communication design problems with the goal of preparing the student for professional practice. Goal includes portfolio-quality graphic design work such as a personal identity and self-promotional package. Recommended concurrent enrollment with ART 215 - Portfolio Development. Prerequisite: A grade of "C" or better in ART 273. [HB, SE]

GALLERY PREPARATION

ART 278 1 - 6 Credits
33 hours of lecture 66 hours of lab

Various aspects of presenting art exhibits, including the care, handling and installation of artwork, arranging fixtures, lighting, exhibition layout design, writing press material, and other professional practices. Repeatable for up to 6 credits. Written consent of Instructional Unit required. [HB, SE]

SELECTED TOPICS

ART 280 1 - 5 Credits
33 hours of lecture

Course focuses on selected topics in art. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

ART 290 1 - 6 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [HB]

WELDED SCULPTURE THEORY I

ART 295 1 Credits
11 hours of lecture

Background for students to begin to develop their own language of form. Through the use of a slide/lecture format, students will learn about contemporary sculpture. Discussions include design problems relating to the fabrication of a welded sculpture. Concurrent enrollment in WELD 120 required. [HB]

WELDED SCULPTURE THEORY II

ART 296 1 Credits
11 hours of lecture

The design and fabrication of non-representational sculpture. Students will view slides of contemporary work and

visit local sculpture sites to improve their understanding of the language of form. The MIG welding process as a sculptural tool will be explored. Concurrent enrollment WELD 121 required. Prerequisite: ART 295. [HB]

WELDED SCULPTURE THEORY III

ART 297

1 Credits

11 hours of lecture

The design and fabrication of non-representational sculpture. Students will view slides of contemporary work and visit local sculpture sites to improve their understanding of the language of form. The MIG welding process as a sculptural tool will be explored. Concurrent enrollment in WELD 122 required. Prerequisite: ART 296. [HB]

Astronomy

INTRO TO ASTRONOMY

ASTR& 101

5 Credits

44 hours of lecture

22 hours of lab

Survey of astronomy designed primarily for non-science majors. Includes study of the sun, solar system, stellar evolution, galaxies and cosmology. Evening observation sessions required. Formerly ASTR 101. [NS,SE]

Automotive Technology

SAFETY, BASICS AND ELECTRIC

AUTO 108

8 Credits

66 hours of lecture

44 hours of lab

Study of shop safety; technical introduction to dealerships and vehicles (TPORT); study of basic electrical components and systems with emphasis on troubleshooting by application of concepts (Toyota 623). Prerequisite: Eligibility for DVED 023, READ 100 and ENGL 097 and consent of Instructional Unit. [GE]

BRAKES

AUTO 109

7 Credits

44 hours of lecture

66 hours of lab

Continuing study of shop safety; study of servicing drum, disk, ABS brakes, and traction control: operation, construction, parts, identification, diagnosis and repair procedures (Toyota 552). Prerequisite: Grade of "C" or better in AUTO 108 or consent of Instructional Unit. [GE]

AUTOMOTIVE BASICS

AUTO 110

15 Credits

110 hours of lecture

110 hours of lab

Technical introduction to dealerships and vehicles (Toyota 021). Basic electrical components and systems with emphasis on troubleshooting by application of concepts (Toyota 623). Servicing drum, disc and ABS brake systems and safety (Toyota 553). Prerequisite: Eligibility for DVED 023, READ 100, and ENGL 097 and consent of Instructional Unit. [GE]

CHASSIS SYSTEMS

AUTO 120

15 Credits

110 hours of lecture

110 hours of lab

Continuing study of chassis systems: shop safety; (Toyota 553) ABS brakes and traction control: operation, construction, parts identification, diagnosis, and repair procedures; (Toyota 652) automotive electrical components and systems: body electrical problems using a 6-step troubleshooting plan; (Toyota 453) steering and suspension systems: operation, construction, parts identification, diagnosis, alignment and repair procedures (Toyota 453). Prerequisite: Grade of "C" or better in AUTO 110 or consent of Instructional Unit. [GE]

ENGINE PERFORMANCE

AUTO 130

15 Credits

110 hours of lecture

110 hours of lab

Emphasis on engine performance operation, construction, parts, identification, diagnosis, and repair procedures.

Basic emission, fuel injection, computer system diagnosis (Toyota 852), and shop safety. Prerequisite: Grade of “C” or better in AUTO 120 or consent of Instructional Unit. [GE]

CHASSIS SYSTEMS

AUTO 141 1 - 15 Credits

110 hours of lecture 110 hours of lab

Continuing study of chassis systems: shop safety: (Toyota 553) ABS brakes and traction control: operation, construction, parts identification, diagnosis and repair procedures: (Toyota 652) automotive electrical components and systems: body electrical problems using a 6-step troubleshooting plan: (Toyota 453) steering, and suspension systems: operation, construction, parts identification, diagnosis, alignment and repair procedures. Prerequisite: AUTO 108 or 110. [GE]

ENGINE PERFORMANCE

AUTO 142 1 - 15 Credits

110 hours of lecture 110 hours of lab

Study of engine performance: shop safety: with emphasis on engine performance operation, construction, parts identification, diagnosis, and repair procedures. (Toyota 852) EFI and TCCS engine control systems: fuel injection system, emission systems and computer system diagnosis. Prerequisite: AUTO 108 or 110. [GE]

COOPERATIVE WORK EXPERIENCE

AUTO 199 1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

DRIVE TRAINS AND ENGINES

AUTO 210 1 - 15 Credits

110 hours of lecture 110 hours of lab

Mechanical drive train units. Fundamentals of clutches, standard transmissions, differentials, and transaxles. Diagnosis, repair, and rebuilding procedures (Toyota 302), engine operation, construction and parts identification, and shop safety. Prerequisite: A grade of “C” or better in AUTO 130 and passing scores on two ASE exams to include A6 or consent of Instructional Unit. [GE]

ADVANCED POWER TRAINS

AUTO 220 15 Credits

110 hours of lecture 110 hours of lab

Fundamentals of torque converters, automatic transmissions, automatic transaxles and final drives. Operation, components, diagnosis, repair, and rebuilding procedures (Toyota 274). Advanced electrical systems, operation, construction, parts identification, diagnosis, repair procedures of engine, transmission, brake, suspension, cruise control, air conditioning and body control computers, and shop safety. Prerequisite: Grade “C” or better in AUTO 210 or consent of instructional unit. [GE]

ADVANCED CHASSIS SYSTEMS

AUTO 230 15 Credits

110 hours of lecture 110 hours of lab

Advanced topics of engine performance (Toyota 256), air conditioning (Toyota 752), ABS brake systems, and advanced suspension systems. Operation, components, rebuilding procedures, construction, parts identification, advanced diagnosis, and repair procedures of engine performance, brake, suspension, air conditioning and body control computers, and shop safety. Prerequisite: Grade of “C” or better in AUTO 220 or consent of Instructional Unit. [GE]

MANUAL TRANSMISSIONS, AXLES AND ENGINES

AUTO 240 1 - 15 Credits

110 hours of lecture 110 hours of lab

Study of mechanical drive train systems. (Toyota 302) Fundamentals of clutches, manual transmissions, manual

transaxles, transfer cases and differentials with emphasis on diagnosis, repair, and rebuilding procedures. Study of engine repair operations, construction, parts identification, diagnosis, with emphasis on rebuilding procedures, and shop safety. Prerequisite: AUTO 108 or 110. [GE]

AUTOMATIC TRANSMISSIONS AND ADVANCED ELECTRICAL

AUTO 241 1 - 15 Credits
110 hours of lecture 110 hours of lab

Study of automatic transmissions: shop safety: (Toyota 274) automatic transmissions: fundamentals of torque converters, automatic transmissions, automatic transaxles & final drive, operation components, diagnosis, repair, & rebuilding procedures. Study of advanced electrical concepts (Toyota 852) engine control systems: operation, construction, parts identification, diagnosis, & repair procedures with emphasis on DVOM & lab scope use. Prerequisite: AUTO 108 or 110. [GE]

A/C AND ADVANCED CHASSIS SYSTEMS

AUTO 242 1 - 15 Credits
110 hours of lecture 110 hours of lab

Continuing study of advanced topics of electrical and engine performance: shop safety: (Toyota 256) with emphasis on evaporative control systems, SRS systems and accessories. Heating and air conditioning systems with emphasis on (Toyota 752) air conditioning and automatic temperature control: operation, components, recharging procedures, construction, and parts identification. Prerequisite: AUTO 108 or 110. [GE]

SELECTED TOPICS

AUTO 280 1 - 8 Credits
88 hours of lecture

Selected topics in Auto. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE]

SPECIAL PROJECTS

AUTO 290 1 - 3 Credits

For automotive majors only. Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Baking - Culinary Arts

BAKING LAB

BAK 110 10 Credits
220 hours of lab

Practical work experience in fundamentals of professional baking. Includes the production of a variety of doughnuts, sweet-rolls, breads, cookies, pastries, pies and cake making and finishing. Concurrent enrollment in BAK 111 required. [GE]

BAKING THEORY

BAK 111 5 Credits
55 hours of lecture

Materials used in baking and how they relate to one another in the mixing, processing and baking of specific products. Concurrent enrollment in BAK 110 required. [GE]

BAKING LAB

BAK 112 10 Credits
220 hours of lab

Practical work experience in fundamentals of professional baking. Includes the production of a variety of doughnuts, sweet-rolls, breads, cookies, pastries, pies and cake making and finishing. Concurrent enrollment in BAK 113 required. [GE]

BAKING THEORY

BAK 113 5 Credits
55 hours of lecture

Materials used in baking and how they relate to one another in the mixing, processing and baking of specific products. Concurrent enrollment in BAK 112 required. [GE]

BAKING LAB

BAK 114 10 Credits
220 hours of lab

Practical work experience in fundamentals of professional baking. Includes the production of a variety of doughnuts, sweet-rolls, breads, cookies, pastries, pies and cake making and finishing. Concurrent enrollment in BAK 115 required. [GE]

BAKING THEORY

BAK 115 5 Credits
55 hours of lecture

Materials used in baking and how they relate to one another in the mixing, processing and baking of specific products. Concurrent enrollment in BAK 114 required. [GE]

BAKING LAB

BAK 116 10 Credits
220 hours of lab

Practical work experience in the fundamentals of professional baking. Includes the production of a variety of doughnuts, sweet rolls, breads cookies, pastries, pies, and cake making and finishing. Concurrent enrollment in BAK 117 required. [GE]

BAKING THEORY

BAK 117 5 Credits
55 hours of lecture

Lectures covering the materials used in baking, how they relate to each other in the mixing and processing of specific products. Lectures include lab demonstrations of each topic. Concurrent enrollment in BAK 116 required. [GE]

BEGINNING CAKE DECORATING

BAK 120 3 Credits
22 hours of lecture 22 hours of lab

Practical exercises covering cake set-up, filling, trimming, and icing. Basic flower construction including design layout, script borders, cut-out designs, and color wheel. [GE]

INTERMEDIATE CAKE DECORATING

BAK 122 3 Credits
22 hours of lecture 22 hours of lab

Practical exercises covering cake set-up, filling, trimming, and icing. The making and designing of a variety of flowers and borders. Script, stencils, piping, gel transfers, design perspective, image projection, and the use of air brushes. [GE]

ADVANCED CAKE DECORATING

BAK 124 3 Credits
22 hours of lecture 22 hours of lab

Wedding cake set-up and construction. Borders for wedding cakes. Make orchids and other flowers to compliment special design cakes. Piping of comic-type figures. [GE]

PASTRY ART

BAK 126 3 Credits
22 hours of lecture 22 hours of lab

Basic course for the beginning pastry chef. Topics include custards, ice creams, specialty sauces, meringues, pate choux, Bavaarians, candies, holiday desserts, and individual plated desserts. [GE]

COOPERATIVE WORK EXPERIENCE

BAK 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved program-related job. Completing specific learning objectives and gaining valuable industry knowledge enhances choice of future employment opportunities. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

BAKERY MANAGEMENT LAB

BAK 210

10 Credits

220 hours of lab

Practical instruction in bakery management, working at various baking stations. Concurrent enrollment in BAK 211 required. Prerequisite: Three quarters of BAK 110, 112, 114, or 116. [GE]

BAKERY MANAGEMENT THEORY

BAK 211

5 Credits

55 hours of lecture

Introduction and group discussions regarding management and merchandising of a bakery. Concurrent enrollment in BAK 210 required. Prerequisite: Three quarters of BAK 111, 113, 115, or 117. [GE]

BAKERY MANAGEMENT LAB

BAK 212

10 Credits

220 hours of lab

Practical instruction in bakery management, working at various baking stations. Concurrent enrollment in BAK 213 required. Prerequisite: Three quarters of BAK 110, 112, 114, or 116. [GE]

BAKERY MANAGEMENT THEORY

BAK 213

5 Credits

55 hours of lecture

Introduction and group discussions regarding management and merchandising of a bakery. Concurrent enrollment in BAK 212 required. Prerequisite: Three quarters of BAK 111, 113, 115, or 117. [GE]

BAKERY MANAGEMENT LAB

BAK 214

10 Credits

220 hours of lab

Practical instruction in bakery management, working at various baking stations. Concurrent enrollment in BAK 215. Prerequisite: Three quarters of BAK 110, 112, 114, or 116. [GE]

BAKERY MANAGEMENT THEORY

BAK 215

5 Credits

55 hours of lecture

Introduction and group discussions regarding management and merchandising of a bakery. Concurrent enrollment in BAK 214. Prerequisite: Three quarters of BAK 111, 113, 115 or 117. [GE]

BAKERY MANAGEMENT LAB

BAK 216

10 Credits

220 hours of lab

Practical instruction in bakery management, working at various baking stations. Concurrent enrollment in BAK 217 required. Prerequisite: Three quarters of BAK 110, 112, 114, or 116. [GE]

BAKERY MANAGEMENT THEORY

BAK 217

5 Credits

55 hours of lecture

Introduction and group discussions regarding management and merchandising of a bakery. Concurrent enrollment in BAK 216 required. Prerequisite: Three quarters of BAK 111, 113, 115 or 117. [GE]

SPECIAL PROJECTS

BAK 290

1 - 12 Credits

Opportunity to plan, organize and complete individualized special projects approved by the department. [GE]

Biology

BIOLOGY PRACTICUM

BIOL 011

1 - 10 Credits

220 hours of lab

Laboratory work for selected biology courses. Concurrent enrollment in BIOL& 251, 252, or 253 required.

SURVEY OF BIOLOGY

BIOL& 100

5 Credits

55 hours of lecture

66 hours of lab

Overview of basic concepts and issues in biology including the cellular basis of life, metabolism, principles of inheritance, evolution and diversity. Strong emphasis on the process of scientific inquiry using critical thinking and communication abilities. This course is intended for non-biology majors and fulfills the laboratory science requirements or as a recommended course for other biology courses. English writing skills are highly recommended.

Required for psychology majors. Students may not receive credit for both BIOL& 100, BIOL 105 and AG/BIOL 175. Formerly BIOL 104. [NS, SE]

ENVIRONMENTAL BIOLOGY

BIOL 101

5 Credits

44 hours of lecture

33 hours of lab

Overview of basic concepts and issues related to the interaction between humans and their environment. Topics include population growth, loss of biodiversity, global climate change, ozone depletion, energy consumption and various types of pollution. This course is intended for non-majors and fulfills the laboratory science distribution requirement. It is also required for WSU-Vancouver Environmental Science/Regional Planning majors. [NS, SE]

INTRODUCTION TO WILDLIFE

BIOL 139

3 Credits

33 hours of lecture

Wildlife conservation and management in the U.S. and throughout the world. Examines the social and political aspects of wildlife conservation and management, challenges to management of biodiversity, wildlife population management, and ecosystem management. [NS, SE]

MAMMALS OF THE NORTHWEST

BIOL 140

3 Credits

33 hours of lecture

Important mammals of the Pacific Northwest. Their identification, classification, life histories, ecology, current status, and management. [NS, SE]

BIRDS OF THE PACIFIC NORTHWEST

BIOL 141

3 Credits

33 hours of lecture

Important Birds of the Pacific Northwest. Their identification, classification, life histories, ecology, current status, and management. [NS, SE]

FRESHWATER FISHES OF THE PACIFIC NORTHWEST

BIOL 142

3 Credits

33 hours of lecture

Important fishes of the Pacific Northwest. Identification, classification, and basic biology of freshwater fishes of the Pacific Northwest. Introduction to fishery management concepts. Overview of factors affecting salmon in the Columbia River Basin. [NS, SE]

INTRODUCTION TO FORESTRY

BIOL 143

3 Credits

33 hours of lecture

A forest management course including the structure and function of trees, soils, forest ecology, forest insects and diseases, timber management, fire management, and forest economy. Class will occasionally meet off campus and a Saturday field trip is required. [NS, SE]

REPTILES & AMPHIBIANS OF THE PACIFIC NW

BIOL 145

3 Credits

33 hours of lecture

Introduction to the biology, ecology, evolution, and geographic distribution of Pacific Northwest reptiles and amphibians. [NS, SE]

SURVEY OF BIODIVERSITY

BIOL 146

2 Credits

22 hours of lecture

Survey of the major of organisms including animals, plants, fungi, protozoa, bacteria, archaea and prions. Students may not receive credit for both BIOL 217 and BIOL 146. [NS, SE]

MARINE BIOLOGY

BIOL 150

5 Credits

33 hours of lecture

44 hours of lab

The marine environment (physical and chemical properties), its plants, bacteria, animal life (vertebrates, invertebrates), ecosystems, fisheries and pollution. [NS, SE]

HUMAN BIOLOGY

BIOL 164

4 Credits

44 hours of lecture

The structure and function of the human body as it relates to homeostasis, health, disease and the environment. Concepts to be covered include human organization, processing, transporting, integration/coordination, reproduction, genetic, and evolution/ecology. Can be used as a science distribution requirement. Concurrent enrollment in BIOL 165 recommended. Formerly BIOL 160. [NS, SE]

HUMAN BIOLOGY LAB

BIOL 165

1 Credits

33 hours of lab

Laboratory study of the structure and function of the human body as it relates to homeostasis, health, disease, and the environment. Concurrent enrollment in, or completion of BIOL 164 required. Formerly BIOL 161. [NS, SE]

HUMAN GENETICS

BIOL 167

3 Credits

33 hours of lecture

Introduction to a variety of genetics topics, including nature versus nurture, forensic sciences, patterns of inheritance, pedigree analysis, diseases, genetically modified organisms, gene therapy, cloning, and eugenics. Course will also focus on realized and/or potential impacts on society. Formerly BIOL 162. [NS, SE]

HUMAN GENETICS LABORATORY

BIOL 168

2 Credits

11 hours of lecture

33 hours of lab

An introductory course that explores a variety of genetics topics through hands-on activities, simulations, presentation, and discussions. Activities may include DNA extraction, restriction enzyme digestions, electrophoresis, recombinant DNA, bacterial transformation, polymerase chain reaction (PCR) mutagenesis, genetically modified foods, antibiotics resistance, genetic crosses, genetic mapping, population genetics, and DNA databases. Prerequisite: A grade of "B-" or better in BIOL& 100 or BIOL 164 or BIOL 167 or consent of Instructional Unit. [NS, SE]

BIOETHICS

BIOL 180

3 Credits

33 hours of lecture

Study of biological science and ethics. Ethical principles and theories are used in solving bioethical dilemmas.

Concepts studied include genetic engineering, inherited disorders, cloning, physician assisted suicide, allocation of health resources, organ donation, and environmental ethics. [HA, NS, SE]

COOPERATIVE WORK EXPERIENCE

BIOL 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

FIELD STUDIES IN BIOLOGY

BIOL 208

1 - 10 Credits

22 hours of lecture

286 hours of lab

For students interested in biology. An ecological approach with a diversity of habitats being visited (marine in winter, Great Basin Desert and marsh lands in spring). Credits for BIOL 208 are accumulated for each trip with a total of 15 credits possible for all trips. Prerequisite: Completion of a 100- or 200- level biology course, or consent of instructional unit. [NS, SE]

MAJORS ECOLOGY/EVOLUTION

BIOL& 221

5 Credits

55 hours of lecture

66 hours of lab

Second course of three introductory courses for life science majors. Covers Mendelian genetics, evolution, adaptation, speciation, biodiversity, and ecology. BIOL& 222 is the first course in the three-course series for majors, to be taken prior to BIOL& 221 or BIOL& 223. Prerequisite: A grade of "C" or better in BIOL& 222 or a grade of "B" or better in BIOL& 100.

MAJORS CELL/MOLECULAR

BIOL& 222

5 Credits

55 hours of lecture

66 hours of lab

First course of three introductory courses for life science majors. Includes organic chemistry, cell structure, DNA structure and replication, gene expression, cell division, organismal development, molecular genetics and biotechnology. BIOL& 222 is the first course in the three-course series for majors; to be taken prior to BIOL& 221 or BIOL& 223. Prerequisite: Completion of or concurrent enrollment in CHEM& 139 (100) or CHEM& 121 (111) or CHEM& 141 (131).

MAJORS ORGANISMAL PHYS

BIOL& 223

5 Credits

55 hours of lecture

66 hours of lab

Third course of three introductory courses for life science majors. Covers the physiology of major animal and plant organ systems. BIOL& 222 is the first course in the three-course series for majors, to be taken prior to BIOL& 221 or BIOL& 223. Prerequisite: A grade of "C" or better in BIOL& 222 or a grade of "B" or better in BIOL& 100.

FLOWERING PLANTS OF THE PACIFIC NORTHWEST

BIOL 224

5 Credits

44 hours of lecture

33 hours of lab

Identification and ecology of local wildflowers through the use of taxonomic keys, preparation of specimens and field trips to study native species in their habitats. For forestry, wildlife, recreation, botany and non-biology majors interested in learning to recognize local wildflowers. A Saturday field trip is required. [NS, SE]

HUMAN A & P I

BIOL& 251

4 Credits

33 hours of lecture

33 hours of lab

The structure and function of the human body. How it can adjust to changes in the internal and external environment. For students in Nursing, Dental Hygiene, and other related life science fields (Pre-Chiropractic, Pre-Optometry, etc) or as a life science for non-biology majors. Terminology, cell, protein synthesis, DNA replication, tissues, integumentary system, skeletal system, articular system, muscular system, nervous system, endocrine system, reproductive system, circulatory system, digestive system, respiratory system, and urinary system. Electrolyte balance. National standardized final exam. Concurrent enrollment in BIOL 011 for one credit and BIOL 251L required. Prerequisite: A grade of "C" or better in BIOL& 100 or BIOL 164/165, or BIOL& 221 or CHEM& 121 or 141 or consent of Instructional Unit. Formerly BIOL 231. [NS, SE]

HUMAN A & P II

BIOL& 252

4 Credits

33 hours of lecture

33 hours of lab

The structure and function of the human body. How it can adjust to changes in the internal and external environment. For students in Nursing, Dental Hygiene, and other related life science fields (Pre-Chiropractic, Pre-Optometry, etc) or as a life science for non-biology majors. Terminology, cell, protein synthesis, DNA replication, tissues, integumentary system, skeletal system, articular system, muscular system, nervous system, endocrine system, reproductive system, circulatory system, digestive system, respiratory system, and urinary system. Electrolyte balance. National standardized final exam. Concurrent enrollment in OL 011, for one credit and BIOL 252L required. Prerequisite: A grade of "C" or better in BIOL 251 or written consent of Instructional Unit. Formerly BIOL 232. [NS, SE]

HUMAN A & P III

BIOL& 253

4 Credits

33 hours of lecture

The structure and function of the human body. How it can adjust to changes in the internal and external environment. For students in Nursing, Dental Hygiene, and other related life science fields (Pre-Chiropractic, Pre-Optometry, etc.) or as a life science for non-biology majors. Terminology, cell, protein synthesis, DNA replication, tissues, integumentary system, skeletal system, articular system, muscular system, nervous system, endocrine system, reproductive systems, circulatory system, digestive system, respiratory system, and urinary system. Electrolyte balance. National standardized final exam. Concurrent enrollment in BIOL 011 for one credit and BIOL 253L required. Prerequisite: A grade of "C" or better in BIOL 252 or consent of Instructional Unit. Formerly BIOL 233. [NS,SE]

MICROBIOLOGY

BIOL& 260

5 Credits

44 hours of lecture

33 hours of lab

History of microbiology and a survey of organisms included in the study of microbiology with emphasis on bacteria. Physiology, morphology, genetics, growth and reproduction of bacteria. Experiments stress lab techniques and organisms that are a factor in clinic and hospital environments. Prerequisite: CHEM& 121 or 141. Formerly BIOL 240. [NS, SE]

HUMAN CADAVER DISSECTION

BIOL 275

1 - 6 Credits

198 hours of lab

Dissection of the muscular, circulatory, nervous, digestive and reproductive systems. [SE]

SELECTED TOPICS

BIOL 280

1 - 5 Credits

55 hours of lecture

Selected topics in Biology. Topics vary, and course contents change to reflect new topics. Because the course varies in content it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

BIOL 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by department. Prerequisite: Written consent of Instructional Unit. [SE]

Business Administration

BASIC ACCOUNTING PROCEDURES

BUS 028

3 Credits

33 hours of lecture

Introduction to the fundamental bookkeeping functions of the double-entry accounting process to prepare financial information for a business or organization. Topics including the basic accounting equation, preparation of business and financial transactions, journalizing, posting, making adjustments, preparing the worksheet, and preparing financial statements from the worksheet.

BASIC ACCOUNTING PROCEDURES

BUS 029

3 Credits

33 hours of lecture

A continuation of BUS 028, with focus on accounting in a merchandising business. Topics include the valuation of inventories, depreciation, tax reports, payroll accounting, and the preparation of financial statements and special journals. Prerequisite: BUS 028.

ACCOUNTING APPLICATIONS

BUS 036

3 Credits

33 hours of lecture

Accounting procedures applied to business simulations. Includes payroll, depreciation of fixed assets, budgeting, maintaining sales and purchase records and preparing financial statements. Prerequisite: BUS 029 or consent of Instructional Unit.

INTRODUCTION TO BUSINESS

BUS& 101

5 Credits

55 hours of lecture

Learn about the business functions of management, human resources, marketing, law, computers, accounting, finance, production, small business and international business. Credit not allowed for both BUS& 101, BUS 101 and MGMT 100. Formerly BUS 101. [SE]

CUSTOMER SERVICE

BUS 110

3 Credits

33 hours of lecture

Introduction to customer-centered business organization. Topics include the principles and practices of customer relations, the history of consumerism and customer relations departments, and methods to develop internal/external customer service skills, including identifying and responding to their needs, improving skills in providing information, dealing with conflict situations, and developing a positive customer relations climate. [GE]

SMALL BUSINESS MANAGEMENT

BUS 115

3 Credits

33 hours of lecture

Strategic and managerial considerations in starting, building, and maintaining a small business. Purchase, location, and layout of a new business along with controlling finances, purchasing, personnel, inventory management, pricing, and the legal environment. [GE]

MERCHANDISING MANAGEMENT

BUS 116

3 Credits

33 hours of lecture

Introduction to merchandising management. Topics include retail buying and merchandising functions, negotia-

tion techniques, management of incoming/outgoing merchandise and inventory, mathematics of merchandising, analysis of vendor performance, sales forecasting, and creating a merchandising plan. [GE]

ADVERTISING

BUS 117

3 Credits

33 hours of lecture

Introduction to advertising. Topics include the problems faced by advertisers and their agencies, along with the policies and procedures for solutions in the development of advertising objectives and strategies, selection of media, determination of budgeting methods, and preparation of copy and layout for effective results. Credit not allowed for both BUS 117 and BUS 217. [GE]

COMPUTERIZED ACCOUNTING

BUS 130

3 Credits

33 hours of lecture

Computerized accounting techniques in the basic areas of financial accounting, including the processes of analyzing, recording, reporting and interpreting accounting data in a business environment. A systems approach with real world applications of the general ledger, accounts receivable, accounts payable, purchasing, cash receipts, accounting for sales, payroll, and month and year-end closing for both a service and a merchandising business. Quickbooks software is utilized in this course. Prerequisite: BUS 028 and 029 or ACCT& 201 (or BUS 231). [GE]

HUMAN RESOURCE MGMT FOR THE SMALL BUSINESS

BUS 132

1 Credits

11 hours of lecture

Human resource management for the moderately small business. Topics include hiring, training, and employee performance review. [GE]

FEASIBILITY PLAN

BUS 133

1 Credits

11 hours of lecture

Learn how to create a feasibility plan. An introduction to the concepts of building a feasibility plan. The purpose for which feasibility plans are developed, audiences, format design, updating, and presenting will be topics of discussion. The importance of maintaining flexibility and advantages of computer usage are demonstrated. Previous business or business planning experience may be useful but is not required. Emphasis is on building familiarity with creation, refinement, research, and techniques used, goals to be achieved, through use of a "hands-on" interactive approach to feasibility plans. [GE]

BUSINESS PLAN

BUS 135

3 Credits

33 hours of lecture

An introduction to building a business plan that incorporates a promotional plan. Plan purpose, audience, design, format, and presentation will be considered. Previous business planning experience useful but not required. Plans will incorporate a "hands-on" interactive approach. [GE]

PERSONAL FINANCE

BUS 160

5 Credits

55 hours of lecture

Buying insurance (life, health, property, and auto), buying and financing a home, minimizing Federal income tax, borrowing, saving, and investing. [GE]

PERSONAL INVESTMENTS

BUS 171

2 Credits

22 hours of lecture

Classification and analysis of various kinds of securities, managing a sound investment program, and mechanics of the stock exchange. [GE]

COOPERATIVE WORK EXPERIENCE

BUS 199

1 - 5 Credits

165 hours of clinical

Up to 5 credits for supervised work training in an approved job. Completion of, or concurrent enrollment in BTEC 147 or HDEV 195, 198, or 200 required. Prerequisite: Completion of one class with a "C" or better in Business, Economics or Management. Consent of Instructional Unit required. [GE]

BUSINESS LAW

BUS& 201

5 Credits

55 hours of lecture

Practical applications of the law of contracts, agency, employment, real and personal property, and bailments in the business world and in one's personal affairs. Legal reasoning and illustrative case problems. Prerequisite: Sophomore standing or consent of Instructional Unit. Formerly BUS 224. [SE]

DESCRIPTIVE STATISTICS

BUS 203

3 Credits

33 hours of lecture

Application of statistics to practical business problems. Includes summarizing and presenting data in tables and graphs, calculating and using common descriptive statistics, determining probabilities and using the binomial, Poisson, and normal probability distributions. All business majors intending to complete a Clark AA degree must take BUS 203. All other majors may take BUS 203 or MATH 203. Knowledge of Excel highly recommended. Prerequisite: MATH 095 or equivalent or consent of Instructional Unit. [Q, SE]

INFERENCE STATISTICS

BUS 204

3 Credits

33 hours of lecture

Application of statistics to practical business and economic problems. Includes sampling, point and interval estimates, hypothesis testing using the normal, t, f and chi-square distributions, analysis of variance, correlation, and simple and multiple regression. All business majors must have completed BUS 203 with a "C" or better if intending to complete a Clark AA degree. All other majors must have completed BUS 203 or MATH 203 with a "C" or better. Knowledge of Excel recommended. Prerequisite: Completion of BUS 203 or MATH 203 with a "C" or better or consent of Instructional Unit. [Q, SE]

BUSINESS COMMUNICATIONS

BUS 211

3 Credits

33 hours of lecture

Developing proficiency in written and oral communications appropriate for business by composing, organizing, and editing documents such as letters, reports, memos, emails, and presentations from a variety of business cases and managerial interviews. Emphasis on team work, collaboration, diversity, intercultural communication, and the delivery of oral presentations, using specialized software. Same as ENGL 212. Prerequisite: ENGL& 101 (or ENGL 101) or consent of Instructional Unit. [C, SE]

PRINCIPLES OF ADVERTISING

BUS 217

5 Credits

55 hours of lecture

Historic, social, environmental and legal aspects of advertising. The client, agency and consumer. Strategies for marketing, research, positioning and advertising. Development of the media plan and types of media. Creative strategy and execution. Credit not allowed for both BUS 117 and BUS 217. [GE]

PROFESSIONAL SELLING

BUS 251

3 Credits

33 hours of lecture

Introduction to personal selling concepts for the relationship era of business. Focus on selling stages, including prospecting, qualifying, developing rapport, overcoming objections, closing techniques, and following up with customer service. Focus on personal, retail, and organizational selling. [GE]

PRINCIPLES OF MARKETING

BUS 260

5 Credits

55 hours of lecture

Introduction to concepts of marketing, with practical emphasis on the research, evaluation, and segmentation of markets. Focus on behavior of consumer and organizational buyers. Activities include developing a marketing plan to include product planning, pricing, promoting, and placement. [GE]

SELECTED TOPICS

BUS 280

1 - 5 Credits

55 hours of lecture

The course focuses on selected topics in Business. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedules. [GE]

SPECIAL PROJECTS

BUS 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Business Technology

SPEED AND ACCURACY BUILDING

BTEC 010

1 - 3 Credits

11 hours of lecture

44 hours of lab

Emphasis will be placed on correct techniques and appropriate drills to improve speed and accuracy. Prerequisite: BTEC 102 or consent of Instructional Unit.

APPLIED OFFICE ENGLISH

BTEC 087

3 Credits

33 hours of lecture

Review and develop fundamental skills in dictionary use, spelling, business vocabulary, editing, word usage, grammar, sentence structure, and punctuation. Provides practice in basic writing skills for business letters and memorandums. Prerequisite: DVED 094 or recommending score on the college writing skills placement test for ENGL 097.

KEYBOARDING

BTEC 100

1 - 3 Credits

11 hours of lecture

44 hours of lab

Introduction to the keyboard, development of speed and accuracy, and basic keyboarding applications, including business letters, memos, tables, and reports. Keyboarding courses (BTEC 101 and 190) are taught as individualized instruction through self-paced study. Students register for BTEC 100. At the end of the quarter, registration will automatically be changed to the appropriate course(s). A student earns from 1 to 3 credits in a course depending on the number of lessons and tests successfully completed. [GE]

BEGINNING KEYBOARDING

BTEC 101

1 - 3 Credits

11 hours of lecture

44 hours of lab

Introduction to keyboard, development of speed and accuracy and basic keyboarding applications - simple letters, memos, tables, and reports. For students who have had no previous keyboarding instruction. Register for BTEC 100. At the end of the quarter, registration will automatically be changed to the appropriate course(s). This course is taught on microcomputers. [GE]

DOCUMENT FORMATTING

BTEC 102

1 - 3 Credits

11 hours of lecture

44 hours of lab

Business letters, tables, electronic forms, use of templates, and report keyboarding on a production basis. Further

development of speed and accuracy. Continuous enrollment, flexible times, individual program. Prerequisite: BTEC 101, or 190, and BTEC 122 or consent of Instructional Unit. [GE]

BEGINNING COMPUTER FUNDAMENTALS

BTEC 105 3 Credits
33 hours of lecture

Introduction to basic computer skills. Topics include computer components, terminology, and skills to manage files/folders, send and receive email, create documents using word processing, make simple spreadsheets, and locate information on the Internet. For students with little or no prior computer experience. [GE]

BUSINESS ENGLISH

BTEC 107 5 Credits
55 hours of lecture

Develop proficiency in the language skills necessary for business writing. Strong emphasis placed on grammar, punctuation, sentence structure, capitalization, subject/verb agreement, and editing. Prerequisite: BTEC 087 or recommending score on the college writing skills placement test for ENGL& 101. [C, SE]

APPLICATION ESSENTIALS: WORD

BTEC 116 1 Credits
11 hours of lecture

Fundamentals of common business applications using MS Windows and MS Word, and using Windows to manage files/folders and giving students hands-on experience in word processing. Basic Word features, basic word processing skills and MLA document formatting will be covered. [GE]

APPLICATION ESSENTIALS: EXCEL

BTEC 117 1 Credits
11 hours of lecture

Fundamentals of common business applications using MS Windows and MS Excel, and using Windows to manage files/folders and giving students hands-on experience in spreadsheets. Basic Excel features, basic spreadsheet skills and common formulas and functions will be covered. [GE]

APPLICATION ESSENTIALS: POWERPOINT

BTEC 118 1 Credits
11 hours of lecture

Fundamentals of common business applications using MS Windows and MS PowerPoint to manage files/folders and giving students hands-on experience in presentation software. Basic PowerPoint features including basic designs and animation will be covered. Successful completion of BTEC 116, 117, & 118 can replace BTEC 149. [GE]

WORD FOR BUSINESS

BTEC 122 5 Credits
55 hours of lecture

Producing letters, memos, and tables using fonts, tabs, tables, numbered and bulleted text, thesaurus, and grammar-check. Reports and longer documents will be created using columns, page numbers, footnotes, endnotes, headers, and footers. Form letters using mailing lists, envelopes, mailing labels, and standard paragraphs will be assembled. Styles, flyers and newsletters with graphics are included. [GE]

INTRODUCTION TO WORD

BTEC 125 3 Credits
33 hours of lecture

Create, format, edit, save and print documents using fonts, numbered and bulleted text tables, tabs, columns, thesaurus, grammar-check. Create reports and longer documents using columns, page numbers, footnotes, endnotes, headers and footers. Assemble form letters using mailing lists, envelopes, mailing labels, and standard paragraphs. Use styles to create flyers and newsletters with graphics. BTEC 100 or keyboarding speed of 30 wpm recommended. Application software is Microsoft Word. [GE]

FILING AND RECORDS MANAGEMENT

BTEC 131 3 Credits
33 hours of lecture
Principles and procedures of records storage and control including record cycle, microrecords, and electronic files. Selection of equipment and supplies. Practice in using indexing rules, coding, and filing for alphabetic, numeric, geographic, and subject filing systems. [GE]

10-KEY CALCULATOR

BTEC 135 1 Credits
5 hours of lecture 10 hours of lab
Ten-key by touch using a business-size electronic calculator. Training on operational features of modern business calculators incorporating business applications. [GE]

BUSINESS TECHNOLOGY SEMINAR

BTEC 140 2 Credits
22 hours of lecture
Problems, methods, procedures, and human relations related to on-the-job work experience in business. Concurrent enrollment in BTEC 199. Prerequisite: Written consent of Instructional Unit required. [GE]

BUSINESS TECHNOLOGY SEMINAR

BTEC 141 2 Credits
22 hours of lecture
Problems, methods, procedures, and human relations related to on-the-job work experience in business. Concurrent enrollment in BTEC 199. Prerequisite: Written consent of Instructional Unit required. [GE]

BUSINESS TECHNOLOGY SEMINAR

BTEC 143 2 Credits
22 hours of lecture
Problems, methods, procedures, and human relations related to on-the-job work experience in business. Concurrent enrollment in BTEC 199 required. Prerequisite: Consent of Instructional Unit. [GE]

BUSINESS TECHNOLOGY SEMINAR

BTEC 145 2 Credits
22 hours of lecture
Problems, methods, procedures, and human relations related to on-the-job work experience in business. Concurrent enrollment in BTEC 199 required. Prerequisite: Consent of Instructional Unit. [GE]

PROFESSIONAL SELF-DEVELOPMENT

BTEC 147 2 Credits
22 hours of lecture
Professional concepts applied to individuals in the business world in relation to themselves, the companies they represent, and the public they serve. Focus on improving resume, cover letter, interview, career portfolio and business communication and business etiquette skills. [GE]

COMPUTER APPLICATIONS ESSENTIALS

BTEC 149 3 Credits
33 hours of lecture
Fundamentals of common business applications using MS Windows and MS Office. An overview using Windows to manage files/folders and giving students hands-on experience in word processing, spreadsheet, presentation, and database software. [GE]

COMPUTER BUSINESS APPLICATIONS

BTEC 150 5 Credits
55 hours of lecture
Introduction to creating business projects with MS Windows and MS Office that emphasize critical thinking and problem-solving skills. Assignments include managing files/folders, creating and formatting Word documents, Ex-

cel workbooks, PowerPoint presentations, and Access databases, as well as integrated Office applications; researching and writing an MLA report and, in teams, creating and giving a presentation based on research. [GE]

INTERMEDIATE MICROCOMPUTER BUSINESS APPLICATIONS

BTEC 152

5 Credits

55 hours of lecture

Continuation of BTEC 150, featuring the advanced functions of Microsoft Office software (word processing, spreadsheets, databases, presentations, e-mail, and schedules). Using a set of business related projects, students will work with the advanced features of Microsoft Office through demonstration, tutorials, case assignments, team work, and lecture. Prerequisite: BTEC 150. [GE]

INTRODUCTION TO OFFICE PUBLISHING TOOLS

BTEC 155

3 Credits

33 hours of lecture

Introduction to Microsoft Publisher. Focus on creating, saving, printing, and/or publishing flyers, newsletters, Web sites, and various business publications and forms; also applying graphics and publishing standards. [GE]

WEB PAGE INTRODUCTION:

BTEC 160

3 Credits

33 hours of lecture

Introduction to Microsoft Expression Web tools and beginning HTML. Create, save, and print Web pages, use interactive forms on the Web, manage websites, and use Web graphics. [GE]

POWERPOINT PRESENTATION

BTEC 165

3 Credits

33 hours of lecture

Create and deliver electronic business presentations using Microsoft PowerPoint incorporating ethics in infographics. Develop presentation skills using text, graphics, charts, clip art, scanned objects, and embedding or linking media for print, sales presentations, and interoffice electronic communications. Previous experience with Windows environment using Word or Excel is recommended. [GE]

INTRODUCTION TO EXCEL

BTEC 169

3 Credits

33 hours of lecture

Skills to create, edit, format, and print spreadsheets, tables, graphs and charts using Microsoft Excel; skills to create and edit formulas and simple functions; skills to create, sort, and filter a worksheet databases; skills to PivotTables, templates, and manage multiple worksheets and workbooks. Prior experience with keyboard and/or ten-key by touch and logical thinking are extremely helpful. [GE]

EXCEL FOR BUSINESS

BTEC 170

3 Credits

33 hours of lecture

Advanced Microsoft Excel skills including creating, editing, and printing professional workbooks, using advanced formulas and charts, auditing and validating worksheet data, and solving complex problems with Excel. Integrating Excel with other office applications and understanding how technology is critical to solving business problems. An introduction to VBA, macros, and making an application in Excel. Prerequisite: BTEC 169 and MATHB 065 or equivalent score on COMPASS placement test or consent of Instructional Unit. [GE]

ACCESS FOR BUSINESS

BTEC 175

3 Credits

33 hours of lecture

Introductory and intermediate skills for Microsoft Access for people who use and maintain Access databases. Topics include creation of tables, queries, forms and subforms, reports and subreports, and macros using both design view and wizards. Introduction to special fields such as memos, OLE and drop-down menus within the tables and

forms; and using validation rules and referential integrity to insure the data is 'clean'. The course does assume knowledge of Microsoft Windows. Also offered as CTEC 180. [GE]

REFRESHER KEYBOARDING

BTEC 190 1 - 3 Credits
11 hours of lecture 44 hours of lab

Review of keyboard and basic typing applications, development of speed and accuracy. For students who have not typed for several years and need a review. Continuous enrollment, flexible time, individualized program. Satisfactory completion meets prerequisite for BTEC 122, Document Formatting. Register in BTEC 100. Registration will automatically be changed at the end of the quarter. This course is taught on a microcomputer. [GE]

COOPERATIVE WORK EXPERIENCE

BTEC 199 1 - 3 Credits
99 hours of clinical

Supervised on-the-job work experience in an approved job in the local community with specific learning objectives and employer evaluation. See Cooperative Education Work Experience description in College Life and Services section of the catalog for more information. Consent of Instructional Unit and concurrent enrollment in accompanying seminar course required. 9 credits maximum. [GE]

ADMINISTRATIVE PROCEDURES

BTEC 211 5 Credits
55 hours of lecture

Overview of current office procedures to equip students with the tools to solve a variety of problems in the changing business world using Microsoft applications. Complete simulated exercises requiring critical thinking, understanding of multicultural relations, and advanced office practices in preparation to work successfully in various office situations. [GE]

E-COMMERCE: INTRO TO BUSINESS ON THE WEB

BTEC 212 3 Credits
33 hours of lecture

Introduction to e-commerce including the evolution of electronic commerce, business-to-business and business-to-customer e-commerce, creating a Web presence, commerce infrastructure and software choices, security and encryption issues, and electronic payment systems. Requires a group project to write a business plan for an online entity. Prior computer class (BTEC 149 or 150), BUS 101, and familiarity with a Web browser recommended. [GE]

SELECTED TOPICS

BTEC 280 1 - 3 Credits
33 hours of lecture

The course focuses on selected topics in Business Technology. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedules. [GE]

SPECIAL PROJECTS

BTEC 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the faculty of the department. Prerequisite: Consent of Instructional Unit. [GE]

Business Technology Medical Office

MATH FOR MEDICAL OFFICE ADMINISTRATORS

BMED 040 1 Credits
11 hours of lecture

Covers basic mathematical concepts related to administrative responsibilities in the medical office. Prerequisite: Qualifying score on the college numerical skills placement for MATH 030 or higher or consent of Instructional Unit.

SURVEY OF HEALTH CARE DELIVERY

BMED 100

3 Credits

33 hours of lecture

A broad overview of the health care delivery system in the United States. Topics relate to hospital ownership and organization, long-term care facilities, home health agencies, hospices, mental health treatment facilities, ambulatory care and diagnostic centers, and social service agencies; topics related to the medical staff, educational preparation of health care professionals, and medical ethics; the roles of federal and state government in health care, Medicare, Medicaid, and other forms of health care financing. Emphasis on encouraging the student to become an informed consumer, aware of potential problems and frustrations of being a patient. [GE]

MEDICAL TERMINOLOGY I

BMED 110

3 Credits

33 hours of lecture

Introduction to medical word building with common medical roots, prefixes and suffixes. Study of terms related to the body as a whole, as well as terms related to human anatomy, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Medical Terminology I covers the following body systems: digestive, urinary, reproductive, nervous, and cardiovascular. Course work will include spelling and pronunciation of terms. [GE]

MEDICAL TERMINOLOGY II

BMED 111

3 Credits

33 hours of lecture

Continuation of Medical Terminology I, BTEC 110. Study of common medical roots, prefixes and suffixes and terms related to human anatomy, physiology, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Medical Terminology II covers the following body systems: respiratory, blood, lymphatic, immune, musculoskeletal, integumentary, sense organs (eyes and ears), endocrine, as well as psychiatry. Course work will include spelling and pronunciation of terms. Prerequisite: BTEC 110 or BMED 110. [GE]

INTRODUCTION TO THE STUDY OF DISEASE

BMED 112

5 Credits

55 hours of lecture

Introduction to the general mechanisms of systemic disease including etiology, prognosis, signs and symptoms. Etiology focus will include infectious mechanisms, hereditary contributions, external physical agents and autoimmune conditions. Discussion of differences between disease and illness. Topics include basic principles of pharmacology, overview of common therapies, laboratory and diagnostic tests. Completion of or concurrent enrollment in BMED 111 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in BMED 110 and BIOL 164/165. [GE]

MEDICAL OFFICE ADMINISTRATIVE PROCEDURES

BMED 115

6 Credits

55 hours of lecture

22 hours of lab

Introduction to the principles, procedures and practice standards of the administrative medical assistant. Study includes: medical reception, telephone reception, appointment scheduling, patient information management, medical record content, quality improvement methods, purchasing office equipment, billing, collecting, medical office accounting, banking procedures, office management, coordination of meetings, and making travel arrangements. The course involves prioritizing work, time management and working as a team member on team projects. Concepts of administrative medical assisting are presented in the class and students will have the opportunity to demonstrate mastery of the competencies. Completion of or concurrent enrollment in BMED 110 required or consent of Instructional Unit. [GE]

MEDICAL REIMBURSEMENT

BMED 129

5 Credits

55 hours of lecture

Overview of inpatient, outpatient health, insurance plans, revenue cycles, health insurance claims, health insurance terminology, reimbursement methodologies for professional services, completion of CMS/1500 and UB-04 billing

forms. Topics include compliance issues, fraud and abuse/HIPAA issues, processing various perspective payment systems. Concurrent enrollment in BMED 111. Prerequisite: Completion or concurrent enrollment in BMED 110. [GE]

MEDICAL CODING - CPT/HCPCS

BMED 130

4 Credits

44 hours of lecture

Introduction to coding in ambulatory settings using HCPCS (Health Care Financing Common Procedure Coding System). Common practices, insurance company restraints, and other problems are discussed in relation to coding using HCPCS and ICD-9-CM for records in hospital ambulatory settings, physicians' offices, long-term care, hospice and home health care. Practice in coding from workbook and assigned exercises is emphasized. Coding from selected records from different settings will be performed. Prerequisite: Completion of, or concurrent enrollment in, BIOL 164 or HEOC 100 and BMED 110 or consent of Instructional Unit. [GE]

MEDICAL CODING ICD-9-CM/ICD-10

BMED 132

5 Credits

55 hours of lecture

Introduction to use of the ICD-9-CM and ICD-10 (International Classification of Disease, 9th & 10th Edition, Clinical Modification) coding system as it is used in inpatient, ambulatory and long term care. Content and purposes of indexes and registers are reviewed. Implications of diagnostic related groups (DRGs) and other prospective payment systems and their relationships to coding assignments and financing of health care, theory and practice are provided in coding problem solving and data quality content and measures. Prerequisite: A grade of "C" or better in BMED 111. [GE]

INTERMEDIATE MEDICAL CODING

BMED 133

5 Credits

55 hours of lecture

Coding systems used in hospitals, physicians' offices and long-term care sites. Emphasis on ICD-9-CM (International Classification of Diseases, 9th Edition, Clinical Modification) and CPT (Current Procedure Terminology). Topics include content and purposes of disease and procedure indexes, as well as the purposes of abstracting from patient medical records; implications of diagnostic related groups (MS-DRGs) and ambulatory payment classifications (APCs) and their relationship to coding assignment and financing of hospital care; relationships of coding assignment and financing of physician office care; coding problem solving and measures for data quality and compliance. Class activities include coding practice using actual patient records and ICD-9-CM/CPT encoder. Prerequisite: A grade of "C" or better in BMED 129, BMED 130 and BMED 132, or consent of Instructional Unit. [GE]

MEDICAL OFFICE SEMINAR

BMED 134

1 Credits

11 hours of lecture

Overview of student success strategies, library resources, the health care delivery system in the United States and the various employment opportunities in medical office occupations including discussion of job requirements and responsibilities. [GE]

THERAPEUTIC COMM SKILLS FOR HEALTH PROF

BMED 137

3 Credits

33 hours of lecture

Techniques for encouraging a therapeutic and helping relationship with the client/patient. Includes an overview of the psychosocial development of a person, from birth to death. [GE]

LEGAL ASPECTS OF THE MEDICAL OFFICE

BMED 138

2 Credits

22 hours of lecture

Introduction to medical law, ethics and bioethics. Topics will include: ethics and bioethics in the practice of medicine, professional codes of ethics, an introduction to law, legal guidelines and the practice of medicine including professional liability, public duties, consents, advance directives, anatomy of a malpractice case, legal aspects of

medical records, confidentiality, security of patient information and the release of patient information, patient access to their own medical records, and responding to subpoena duces tecum of medical records. [GE]

CMA EXAMINATION REVIEW SEMINAR

BMED 139

1 Credits

11 hours of lecture

Review of Medical Assistant administrative and clinical competencies including anatomy and physiology, medical terminology and legal aspects. Discussion of studying and test taking techniques to prepare for Medical Assistant Certification examination. Concurrent enrollment in BMED 166 or consent of Instructional Unit required. Prerequisite: BMED 110, 111, 163, 164, BIOL 160. [GE]

LEGAL ASPECTS OF HEALTH INFORMATION

BMED 140

2 Credits

22 hours of lecture

Introduction to legal concepts with particular focus on healthcare providers and records generated in the practice of medicine, including administration of law, legal and court structure and function, and managing the release of patient information. Topics include liability of hospital and providers of care as well as current pertinent legislation, legal status of medical staff, laws relating to bioethical issues. [GE]

MEDICAL OFFICE CLINICAL PROCEDURES I

BMED 163

6 Credits

44 hours of lecture

44 hours of lab

Principles of medical office clinical procedures including preparing a patient for assisting a physician with examinations, procedures, and components of patient history. Covers charting, vital signs, sterile setups, universal blood precautions and methods of asepsis and sterilization. Topics also include techniques in patient interviewing and education. Lab provides the opportunity for practice and to demonstrate proficiency in procedures. Concurrent enrollment in BTEC 111 required. Prerequisite: BTEC 110 and BIOL& 164 (or BIOL 160), or the consent of the Instructional Unit. [GE]

MEDICAL OFFICE CLINICAL PROCEDURES II

BMED 164

6 Credits

44 hours of lecture

44 hours of lab

Continuation of Medical Office Clinical Procedures I covering medical office clinical procedures including methods of collecting blood, processing specimens, equipment preparation and operation, electrocardiology, medication administration, medical and surgical asepsis. The lab provides an opportunity to practice procedures and demonstrate proficiency. Concurrent enrollment in BTEC 164L. Prerequisite: BTEC 163. [GE]

MEDICAL ASSISTANT DIRECTED PRACTICE

BMED 166

6 Credits

11 hours of lecture

Supervised medical assistant experience in a health care facility. Provides students with the opportunity to apply knowledge and skill in performing administrative and clinical procedures and in developing professional attitudes for interacting with other professionals and consumers. Written consent of Instructional Unit required. Prerequisite: BTEC 115 and 164 and consent of the Instructional Unit. [GE]

HEALTH INFORMATION PROCEDURES

BMED 222

5 Credits

44 hours of lecture

22 hours of lab

Introduction to health information procedures, principles and practice standards associated with medical record department and health unit coordinator responsibilities. The course explores the licensing, regulation, and accreditation of health care facilities, hospital organization, patient registration, health care statistics, medical record content, medical record assembly, analysis and coding. Course will introduce ICD-9-CM and CPT coding and a review other medical classification and nomenclatures. Health Unit Coordinator responsibilities will be introduced with focus on transcription of physician orders. Prerequisite: BMED 040 (BTEC 040). [GE]

DIRECTED PRACTICE

BMED 225 2 Credits
11 hours of lecture 33 hours of clinical
Supervised learning in a clinic, medical center, or other health care facility, practicing medical office administrative responsibilities. Prerequisite: Consent of Instructional Unit. [GE]

DIRECTED PRACTICE

BMED 226 3 Credits
11 hours of lecture 66 hours of clinical
Supervised learning in a clinic, medical center, or other health care facility, practicing medical office administrative responsibilities. Prerequisite: Consent of Instructional Unit. [GE]

SELECTED TOPICS

BMED 280 1 - 3 Credits
33 hours of lecture
The course focuses on selected topics in Business Technology. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedules. [GE]

SPECIAL PROJECTS

BMED 290 1 - 5 Credits
Opportunity to plan, organize and complete special projects approved by the faculty of the department. Prerequisite: Consent of Instructional Unit. [GE]

CAPSTONE

BMED 299 2 Credits
11 hours of lecture 22 hours of lab
Capstone project to expand knowledge by studying selected BMED topics. Normally taken during the final quarter of the program. Application of many topics covered in the other program courses in a simulated employee team or small group setting. Projects must be pre-approved by the instructor.

Chemistry

SKILLS FOR PRE-HEALTH CHEMISTRY

CHEM 095 4 Credits
44 hours of lecture
For students who have little to no previous chemistry experience, preparation for the fast-paced and intensive experience of CHEM& 121, required for health occupation fields. Topics include measurements, density, nomenclature, properties of elements and compounds, understanding the periodic table, writing and balancing chemical equations, the mole, and the application of mathematical operations used in chemical problem solving. Prerequisite: Eligibility for MATH 093, 095 or equivalent or consent of Instructional Unit. Students cannot receive credit for both CHEM 050 and CHEM 095.

CHEMICAL CONCEPTS WITH LAB

CHEM& 110 5 Credits
44 hours of lecture 22 hours of lab
Introductory chemistry course to fulfill the General Education Science with Laboratory requirement, intended for non-science majors who will not take additional chemistry. Focus on unit factor and equation problem solving skills as related to chemical concepts, also stoichiometry and stoichiometric problem solving skills. Topics include the structure of the atom, chemical reactions, and chemical and physical properties to describe matter. [NS, SE]

INTRO TO CHEMISTRY: PRE-HEALTH

CHEM& 121 5 Credits
44 hours of lecture 22 hours of lab
Topics in general chemistry applicable to students seeking a 2-year degree in the health-occupations fields. Unit-

factor method is applied to problem solving. Topics covered include units of measurement, atomic structure, chemical bonding, energy, the mole concept, nomenclature of inorganic compounds, writing and balancing equations, properties of gases, solutions and colloids, reaction rates and equilibrium, acids, bases and salts, radiation and health. Completion of elementary algebra recommended. Prerequisite: A grade of "C" or better in CHEM 050 and eligibility for MATH 093/095; or Eligibility for MATH 111. Formerly CHEM 111. [NS,SE]

INTRO TO ORGANIC/BIOCHEM

CHEM& 131

5 Credits

55 hours of lecture

44 hours of lab

Aspects of organic and biochemistry emphasizing how chemicals affect functioning of the human body. Applicable to students seeking a 2-year degree in the health-occupations fields. Topics covered include aliphatic and aromatic compounds, alcohols, ethers, amines, aldehydes, ketones, carboxylic acids and their derivatives, carbohydrates and carbohydrate metabolism, lipids and lipid metabolism, proteins and protein metabolism, enzymes and hormones, nucleic acids and the chemistry of heredity, body fluids and the human circulation system and nutrition. Prerequisite: Grade of "C" or better in CHEM& 121. Formerly CHEM 112. [NS,SE]

GENERAL CHEMISTRY PREPARATION

CHEM& 139

4 Credits

44 hours of lecture

For students who need additional background in applied mathematics and chemistry to enroll in the CHEM& 141-142-143 sequence for science and engineering majors. Topics include scientific methods of measurement, significant figures, nomenclature, properties of elements, compounds, and solutions, the periodic table, writing and balancing chemical equations, and focused (extensive) practice on stoichiometric problem solving. Prerequisite: A grade of "C" or better in MATH 093, 095 or equivalent or consent of Instructional Unit. Formerly CHEM 100. [GE, SE]

GENERAL CHEMISTRY I

CHEM& 141

4 Credits

44 hours of lecture

First of a 3-quarter sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include systems of measurement, atomic structure, chemical bonding and shape, stoichiometric calculations, properties of gases, nomenclature of inorganic compounds, and writing and balancing equations. Students must also have completed a full year of high school chemistry or CHEM& 139 with a "C" or better. Students will be required to show proof of previous chemistry the first day of class. Concurrent enrollment in CHEM& 151, or consent of Instructional Unit. Prerequisite: Eligibility for MATH 111 and a grade of "C" or better in CHEM& 139 or equivalent, or proof of successful completion of 1-year of high school chemistry within the past 3 years as verified by unit or college advisor. [NS, SE]

GENERAL CHEMISTRY II

CHEM& 142

4 Credits

44 hours of lecture

Second of a 3-quarter sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include properties of liquids and solids, solutions, equilibria, reaction kinetics, acid-base theories, ionic equilibria and an introduction to organic chemistry. Concurrent enrollment in CHEM& 152, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in CHEM& 141 and CHEM& 151. [NS, SE]

GENERAL CHEMISTRY III

CHEM& 143

4 Credits

44 hours of lecture

Third of a three-quarter sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include ionic equilibria, thermodynamics, nuclear chemistry, electrochemistry, transition metal chemistry, and applications of all chemical concepts to the elements on the periodic table. Concurrent enrollment in CHEM& 153 is recommended. Prerequisite: A grade of "C" or better in CHEM& 142 and CHEM& 152. [NS, SE]

GENERAL CHEMISTRY LABORATORY I

CHEM& 151

1 Credits

33 hours of lab

First of a 3-quarter lab sequence designed for science and engineering majors, to coincide with CHEM& 141 General Chemistry I. Applications of the scientific method by correlating theory with experimental observation. Topics include systems of measurement, observing and affecting chemical reactions, energy considerations, chemical behavior of aqueous systems, the nature of chemical bonding, gas laws, graphing techniques, using technological interfaces to collect and manipulate data, and mathematical calculations to support chemical observations. Students must register for CHEM& 141, or consent of Instructional Unit. [NS, SE]

GENERAL CHEMISTRY LABORATORY II

CHEM& 152

1 Credits

33 hours of lab

Second of a 3-quarter lab sequence designed for science and engineering majors, to coincide with CHEM& 142 General Chemistry II. Applications of the scientific method by correlating theory with experimental observation. Topics include phenomena of solid and liquid states, colligative properties of aqueous and non-aqueous systems, reaction kinetics, general equilibria, acid/base equilibria, graphing techniques, using technological interfaces to collect and manipulate data, and mathematical calculations to support chemical observations. Concurrent enrollment in CHEM& 142, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in CHEM& 141 and CHEM& 151, or consent of Instructional Unit. [NS, SE]

GENERAL CHEMISTRY LABORATORY III

CHEM& 153

2 Credits

11 hours of lecture

33 hours of lab

Third of a 3-quarter lab sequence to coincide with CHEM& 143 General Chemistry III for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include chemical and ionic equilibria, acid-base theories of aqueous solutions and selected principles of electrochemistry, gravimetric analysis, coordination chemistry, volumetric analysis, inorganic synthesis, and the statistical handling of data. Completion of or concurrent enrollment in CHEM& 143 with a grade of "C" or better. Prerequisite: A grade of "C" or better in CHEM& 142 and CHEM& 152, or consent of Instructional Unit. [NS, SE]

COOPERATIVE WORK EXPERIENCE

CHEM 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

ORGANIC CHEMISTRY I

CHEM& 241

4 Credits

44 hours of lecture

First of a 3-quarter sequence designed for science and engineering majors, or students seeking a career in the health professions. Topics include mechanistic approach applied to hydrocarbons and alkenes, spectroscopic methods, molecular orbitals, hybridization, resonance, acid/base theory, nomenclature, structure and reactivity, kinetic and thermodynamic theories of reactions. Concurrent enrollment in CHEM& 251 is required, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in CHEM& 143, or consent of Instructional Unit. [NS,SE]

ORGANIC CHEMISTRY II

CHEM& 242

4 Credits

44 hours of lecture

Second of a 3-quarter sequence designed for science and engineering majors, or students seeking careers in the health professions. Topics include organic synthesis and mechanistic approach applied to polar molecules; topics may include alcohols, ethers, organometallic compounds, aromatic systems, aldehydes and ketones. Concurrent enrollment in CHEM& 252 is required, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in CHEM& 241 and CHEM& 251, or consent of Instructional Unit. [NS, SE]

ORGANIC CHEMISTRY III

CHEM& 243

4 Credits

44 hours of lecture

Third of a 3-quarter sequence designed for science and engineering majors, or students seeking careers in the health professions. Topics include mechanistic and synthetic approach applied to polar molecules; topics may include reactions of carboxylic acids and derivatives, dicarbonyl compounds, amines, conjugated systems, polymer systems and an introduction to biomolecules. Prerequisite: A grade of "C" or better in CHEM& 242 and CHEM& 252, or consent of Instructional Unit. [NS, SE]

ORGANIC CHEMISTRY LABORATORY I

CHEM& 251

1 Credits

44 hours of lab

First of a 3-quarter laboratory sequence designed for science and engineering majors, or students seeking a career in the health professions. Focus on basic organic laboratory techniques such as recrystallizations, melting points, distillations, reflux, extractions, chromatography, and spectroscopy; laboratory notebook-keeping skills and scientific writing methods. Concurrent enrollment in CHEM& 241, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in CHEM& 143 and CHEM& 152, or consent of Instructional Unit. [NS, SE]

ORGANIC CHEMISTRY LABORATORY II

CHEM& 252

1 Credits

44 hours of lab

Second of a 3-quarter laboratory sequence designed for science and engineering majors, or students seeking a career in the health professions. Focus on organic laboratory techniques, spectroscopic characterization of molecules, and introduction to synthetic techniques, including multi-step syntheses and handling moisture- or air-sensitive compounds. Concurrent enrollment in CHEM& 242, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in CHEM& 241 and CHEM& 251, or consent of Instructional Unit. [NS, SE]

ORGANIC CHEMISTRY LABORATORY III

CHEM& 253

2 Credits

11 hours of lecture

44 hours of lab

Third of a 3-quarter sequence designed for science and engineering majors, or students seeking careers in the health professions. Advanced synthetic techniques, project-based experiments and identification. CHEM& 253 replaces CHEM 214 (beginning in Spring 2009). Prerequisite: A grade of "C" or better in CHEM& 242 and CHEM& 252, or consent of Instructional Unit. [NS, SE]

SPECIAL PROJECTS

CHEM 290

1 - 6 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Chinese**CHINESE I**

CHIN& 121

5 Credits

55 hours of lecture

First of a three-quarter sequence in elementary Mandarin Chinese. Emphasis on listening/speaking skills, with additional practice in reading/writing. Course intended for students with little or no previous experience in studying Chinese. [HA, SE]

SELECTED TOPICS

CHIN 280

1 - 5 Credits

55 hours of lecture

Course focuses on selected topics in Chinese. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics.

Communication Studies (Speech)

INTRO TO MASS MEDIA

CMST& 102

5 Credits

55 hours of lecture

Examination of the interdependence of mass communication and society in the US with emphasis on media literacy and conscious consumption of mass mediated messages. [HA, SE]

INTRODUCTION TO BROADCASTING

CMST 130

3 Credits

33 hours of lecture

Examination of the broadcasting system; the social and economic forces that shape it and its end product, programming. Analysis of the rights and responsibilities of broadcasters. [SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 171

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis on debate/persuasive speaking, attention given to other forms of speech events and tournament management. Prerequisite: A grade of "C" or better in CMST& 220 (or CMST 101), or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 172

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis on informative speaking and interpretive reading. Attention given to debate and other forms of speech events. Prerequisite: A grade of "C" or better in CMST& 220 (or CMST 101), or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 173

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis on audience analysis and other forms of forensics activities. Prerequisite: A grade of "C" or better in CMST& 220 (CMST 101) or consent of Instructional Unit. [HB, SE]

COOPERATIVE WORK EXPERIENCE

CMST 199

1 - 5 Credits

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in HDEV 195, 198 or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

INTERPERSONAL COMMUNICATION

CMST& 210

5 Credits

55 hours of lecture

Person-to-person communication emphasizing theoretical principles and their application. How self-concept, perception, verbal and non-verbal attributes and attitudes influence communication within the family, between friends, and at work. [C, SE, HA]

ORAL COMMUNICATION IN BUSINESS

CMST 212

3 Credits

33 hours of lecture

Principles and practices of speech communication at work. Face-to-face and person-to-group interactions common to organizations and work settings. Credit not allowed for both MGMT 108 and CMST 212. [SE]

INTERCULTURAL COMMUNICATION

CMST 216

5 Credits

55 hours of lecture

Examination of the impact of culture on communication. Analysis of patterns of communications which affect the ability to establish clear understanding and effective interpersonal relationships. Skills to improve communication across cultural boundaries. [HA, SE]

PUBLIC SPEAKING

CMST& 220

5 Credits

55 hours of lecture

Introduction to speechmaking based primarily on a traditional public speaking approach. Aids students in developing theoretical understanding and practical application of oral communication skills. Techniques in controlling speech anxiety, how to structure and organize information to present to a variety of audiences; and physical and vocal delivery skills. [C,HA,SE]

SMALL GROUP COMMUNICATION

CMST& 230

5 Credits

55 hours of lecture

Small group communication emphasizing theoretical principles and their application, enabling students to become more comfortable and competent participants in the group communication process. Emphasis will be on the study and application of the dynamics of group development, problem solving methodologies, and the use of power, including leadership and conflict. Formerly titled CMST 201. Credit not allowed for both CMST 201 and CMST& 230. [C,SE,SS,HA]

INTRODUCTION TO PERSUASION THEORY

CMST 240

5 Credits

55 hours of lecture

A survey of the evaluation of the concepts and techniques of persuasive public address, from the early Greek period through contemporary theorists. A non-public speaking course with the emphasis and focus on the understanding and analysis of persuasive oral discourse. [HA, SE]

WRITING FOR TELEVISION AND FILM

CMST 250

3 Credits

33 hours of lecture

Film and television scriptwriting with emphasis on commercial, dramatic and news formats. Prerequisite: A grade of "C" or better in ENGL& 101 (or ENGL 101). [SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 271

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis given to advanced and independent studies in debate and persuasive speaking. Attention given to style. Students will manage the Clark College forensics tournament. Prerequisite: A grade of "C" or better in CMST 171, 172 or 173, or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 272

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis given to advanced and independent studies in informative speaking and interpretive reading. Attention given to style. Prerequisite: A grade of "C" better in CMST 171, 172 or 173, or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 273

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Attention given to advanced and independent

audience analysis and other forensics activities. Prerequisite: A grade of “C” or better in CMST 171, 172 or 173, or consent of Instructional Unit. [HB, SE]

SELECTED TOPICS

CMST 280 5 Credits
55 hours of lecture

The course focuses on selected topics in Communication Studies. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule. [SE]

SPECIAL PROJECTS

CMST 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Computer Aided Design and Drafting Technology

CADD ORIENTATION

CADD 101 1 Credits
22 hours of lab

Combination of off-campus field trips to a variety of businesses and on-campus test-drives of several core CADD software applications seen on the field trips. Focus on exposure and orientation to core CADD software applications, and development of an educational plan. [GE]

CADD CAREERS

CADD 102 1 Credits2
2 hours of lab

Combination of off-campus field trips to a variety of businesses and on-campus test-drives of several core CADD software applications seen on the field trips. Focus on exposure and orientation to core CADD software applications beyond CADD 101 and development of a career plan. Prerequisite: A grade of “C” or better in CADD 101. [GE]

BASIC SKETCHUP

CADD 110 4 Credits
16 hours of lecture 55 hours of lab

Basic operations of the current version of SketchUp. Topics include screen features, drawing and editing 3D objects, using and applying material to surfaces, opening and saving files, and using AutoCAD drawing file data. Recommended for anyone comfortable using a PC. [GE]

BASIC RHINOCEROS

CADD 120 4 Credits
16 hours of lecture 55 hours of lab

Basic operation of 3D surface modeling software (Rhinceros) of interest to students in Engineering, CAD, Art, and GRCP. Creating and editing curves, surfaces, solids, set-up textures, and lighting effects. Includes the rendering of 3D objects. Recommended for anyone comfortable using a PC. [GE]

BASIC MICROSTATION

CADD 130 4 Credits
16 hours of lecture 55 hours of lab

Basic operations of the current version of MicroStation. Covers screen features, command terminology, drawing and editing objects, working with 2D and 3D, using reference files, opening and saving drawing files, and printing. Recommended for anyone comfortable using a PC. [GE]

BASIC AUTOCAD

CADD 140

4 Credits

16 hours of lecture

55 hours of lab

Basic operations of the current version of AutoCAD. Covers screen features, drawing and editing objects, working with 2D and 3D, using both model space and layouts, opening and saving files, and using templates. Recommended for anyone comfortable using a PC. [GE]

ARCHITECTURAL DRAFTING 1 W/AUTOCAD

CADD 141

4 Credits

16 hours of lecture

55 hours of lab

Beginning foundations of architectural drafting coupled with intermediate level AutoCAD. Architectural drafting topics include terminology, symbology, typical multi-sheet drawing set for a residence with elevations, site plan, foundation plan, floor plan, roof plan, and related basic residential construction processes. AutoCAD topics include layer management, plotting and plot styles, and using xrefs. Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 140 or CADD 140. [GE]

CIVIL DRAFTING 1 WITH AUTOCAD

CADD 143

4 Credits

16 hours of lecture

55 hours of lab

Beginning foundations of civil drafting coupled with intermediate level AutoCAD. Civil drafting topics include terminology, symbology, survey data, contours, and profiles. AutoCAD topics include layer management, plotting and plot styles, and using xrefs. Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 140 or CADD 140. [GE]

MECHANICAL DRAFTING 1 WITH AUTOCAD

CADD 144

4 Credits

16 hours of lecture

55 hours of lab

Beginning foundations of mechanical drafting coupled with intermediate level AutoCAD. Mechanical drafting topics include terminology, symbology, fasteners, tolerancing, and related manufacturing processes. AutoCAD topics include layer management, plotting and plot styles, and using xrefs. Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 140 or CADD 140. [GE]

AUTOCAD ARCHITECTURE

CADD 145

4 Credits

16 hours of lecture

55 hours of lab

Basic operations of the current version of AutoCAD Architecture (formerly Architectural Desktop), as used in architectural design and drafting. Topics include screen features, drawing and editing 3D objects, using sheets and views, file management, and using pre-existing AutoCAD drawing file data. Prerequisite: A grade of "C" or better in ENGR 140 (or ENGR 114) or CADD 140. [GE]

BASIC SOLIDWORKS

CADD 150

4 Credits

16 hours of lecture

55 hours of lab

Parametric solids modeling with SolidWorks, covering the breadth of the software at a basic level. Create part, assembly, and drawing files, including design tables and multiple configurations. Recommended for anyone comfortable using a PC. [GE]

MECHANICAL DRAFTING 1 WITH SOLIDWORKS

CADD 154

4 Credits

16 hours of lecture

55 hours of lab

Mechanical drafting using SolidWorks. Focus on detailed control in annotating and producing drawings of parts and assemblies. Includes components in mechanical print reading. Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 150 or CADD 150. [GE]

INTERMEDIATE SOLIDWORKS - TOP DOWN DESIGN

CADD 155 4 Credits
16 hours of lecture 55 hours of lab
System design using SolidWorks in the context of an assembly. Focus on complex modeling of parts and assemblies.
Prerequisite: CADD 150 or ENGR 150. [GE]

INTRODUCTION TO CAM

CADD 160 2 Credits
11 hours of lecture 22 hours of lab
Introduction to CAM software for CNC machine operation. Recommended for anyone comfortable using a PC.
[GE]

BASIC REVIT

CADD 170 4 Credits
16 hours of lecture 55 hours of lab
Basic operations of the current version of Revit, as used in architectural design and drafting. Topics include screen features, drawing and editing 3D objects, using sheets and views, file management, and using pre-existing AutoCAD drawing file data. Recommended for anyone comfortable using a PC. [GE]

COOPERATIVE WORK EXPERIENCE

CADD 199 1 - 5 Credits
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Prerequisite: Consent of instructional unit and completion of or concurrent enrollment in HDEV 195, 198 or 200 required. [GE]

PRESENTATION GRAPHICS

CADD 207 4 Credits
16 hours of lecture 55 hours of lab
Use of AutoCAD graphics in MS Word documents, lighting and rendering, and explores importation of CAD files into other graphics packages such as Studio 3D MAX. Prerequisite: A grade of "C" or better in CADD 144, CADD 143, CADD 144 or CADD 154. [GE]

ARCHITECTURAL DRAFTING 2

CADD 210 3 Credits
11 hours of lecture 44 hours of lab
Continuance of architectural drafting from CADD 141, with a focus on refinement and using industry standards. Create a drawing set for a residential structure, with review by local professionals. Prerequisite: A grade of "C" or better in CADD 141. [GE]

AUTOCAD CUSTOMIZATION

CADD 214 3 Credits
11 hours of lecture 44 hours of lab
Customizing buttons and toolbars, using AutoLISP to create new AutoCad commands. Introduction to custom dialog boxes. Prerequisite: A grade of "C" or better in CADD 141, CADD 143 or CADD 144. [GE]

CIVIL DRAFTING 2

CADD 230 3 Credits
11 hours of lecture 44 hours of lab
Continuance of civil drafting from CADD 143, with a focus on refinement and using industry standards. Create a drawing set for a residential subdivision, with review by local professionals. Prerequisite: A grade of "C" or better in CADD 143. [GE]

MECHANICAL DRAFTING 2

CADD 240 3 Credits
11 hours of lecture 44 hours of lab
Continuance of mechanical drafting from CADD 144 and/or CADD 154, with a focus on refinement and using

industry standards. Create a drawing set for a residential subdivision, with review by local professionals. Prerequisite: A grade of "C" or better in CADD 144 or CADD 154. [GE]

SELECTED TOPICS

CADD 280 1 - 5 Credits
55 hours of lecture

Course focuses on selected topics in EMET. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE]

SPECIAL PROJECTS

CADD 290 1 - 6 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of instructional unit. [GE]

CADD CAPSTONE PRACTICUM

CADD 299 5 Credits
11 hours of lecture 88 hours of lab

Capstone project to expand knowledge by studying selected CADD topics in selected major area of study (architectural, civil, mechanical, or other) and producing a comprehensive portfolio-documented project. Projects must be pre-approved by the instructor. Prerequisite: Consent of Instructional Unit.

Computer Graphics Technology

GRAPHIC DESIGN TECHNOLOGY I

CGT 100 4 Credits
22 hours of lecture 44 hours of lab

Introduction to the technical tools and procedures used in the graphic design profession. Topics include Mac operating system, file formats, raster/vector graphics, font management, color models, resolution, scanning, digital imaging, copyright, tone and color correction. Hands-on experience with computer graphics and page layout software to learn skills necessary to complete projects in graphic design studio courses. [GE]

PHOTOSHOP RASTER GRAPHICS

CGT 101 4 Credits
22 hours of lecture 44 hours of lab

Fundamentals of digital imaging using Adobe Photoshop. Focus on software tools and techniques to capture, correct, create and combine images for print and web. Topics include input devices, resolution, tone and color correction, retouching, painting, drawing, image manipulation, compositing, automation, graphic formats, design and reproduction considerations. [GE]

ILLUSTRATOR VECTOR GRAPHICS

CGT 102 3 Credits
22 hours of lecture 22 hours of lab

Fundamentals of vector drawing using Adobe Illustrator. Focus on software tools and techniques to draw, trace, transform and combine graphics for print and web. Topics include drawing tools, path editing, shape manipulation, blending, shading, object layering, typography, graphic formats, design and reproduction considerations. [GE]

INDESIGN PAGE LAYOUT

CGT 103 4 Credits
22 hours of lecture 44 hours of lab

Fundamentals of page layout using Adobe InDesign. Focus on software tools and techniques to combine text and graphics into visual layouts for print communications. Topics include document design, color and typographic principles, copyfitting, spatial organization, visual hierarchy, file and font management, prepress issues, marketing and printing considerations. [GE]

WEB MULTIMEDIA CONTENT I

CGT 104

4 Credits

22 hours of lecture

44 hours of lab

Introduction to content development strategies used to create and combine multimedia elements for web presentation or mobile communication. Focus on conceptual and visual design, user, client and marketing considerations. Activities include using technologies to produce static and interactive media, motion graphics, 2D animation, integrated audio and visual, and dynamic interfaces. [GE]

USER EXPERIENCE DESIGN

CGT 105

3 Credits

22 hours of lecture

22 hours of lab

Investigation into the field of usability and interaction design. Focus on strategies and best practices to better understand how to create successful user experiences for web presentation or mobile communication. Topics include usability, interactivity, user research, testing scenarios, navigational models, information architecture and interface design. Students will design and conduct usability testing. [GE]

SOCIAL MEDIA EXPLORATION

CGT 106

3 Credits

22 hours of lecture

22 hours of lab

Exploration of current practices in the use of social media and internet resources for professional development, networking, collaboration, communication, marketing and advertising. Focus on the strengths, roles and issues of various social media tools. Activities include developing and implementing a social media strategy for personal branding and professional networking. [GE]

COOPERATIVE WORK EXPERIENCE

CGT 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in HDEV 195, 198 or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

GRAPHIC DESIGN TECHNOLOGY II

CGT 200

4 Credits

22 hours of lecture

44 hours of lab

Further study of the technical tools and procedures used in the graphic design profession. Topics include digital workflow, prepress and reproduction requirements, preflight, file submission, font licensing, color management, proofing, paper stock, printing processes and quality issues. Hands-on experience with computer graphics and page layout software to learn skills necessary to complete projects in graphic design studio courses. Prerequisite: A grade of "C" or better in CGT 100. [GE]

WEB VIDEO PRODUCTION

CGT 201

4 Credits

22 hours of lecture

44 hours of lab

Fundamentals of video production for web delivery. Focus on all aspects of the video production workflow from concept to capture to multimedia integration and post-production processing. Topics include conceptual design, storytelling, video shooting techniques, non-linear editing, sound editing, media formats, compression and publishing for web presentation. Prerequisite: A grade of "C" or better in CGT 101 or CGT 100. [GE]

WEB MULTIMEDIA CONTENT II

CGT 204

4 Credits

22 hours of lecture

44 hours of lab

Further study with content development strategies used to create and combine multimedia elements for web presentation or mobile communication. Focus on conceptual and visual design, user, client and marketing considerations. Topics include advanced use of integrated media technologies, scripting techniques, animation or motion-based strategies, content embedding, dynamic interaction and testing. Prerequisite: A grade of "C" or better in CGT 104. [GE]

WEB DESIGN I

CGT 205

4 Credits

22 hours of lecture

44 hours of lab

Fundamentals of web design and site development. Focus on web authoring standards, tools and techniques to conceive, design, produce and publish websites. Topics include client and marketing analysis, information architecture, conceptual and visual design, workflow and team process, coding, content integration and website testing. Prerequisite: A grade of "C" or better in CTEC 122 and CGT 101 or GRCP 120. [GE]

WEB DESIGN II

CGT 206

4 Credits

22 hours of lecture

44 hours of lab

Further study in web design and site development. Focus on web authoring trends and strategic methodology to better understand how to extend website functionality and value. Topics include strategies such as cross platform and browser compatibility, content management, search engine optimization, site statistics, accessibility, project management and maintenance planning. Prerequisite: A grade of "C" or better in CGT 205. [GE]

EMERGING WEB TECHNOLOGIES

CGT 207

3 Credits

22 hours of lecture

22 hours of lab

Exploration and practical examination of emerging web technologies. Focus on exploring, discussing, and researching how evolving and influential technologies are changing the web landscape. Activities include engaging issues and formulating theories relevant to these technologies. Prerequisite: A grade of "C" or better in CGT 205 or consent of Instructional Unit. [GE]

PROFESSIONAL PRACTICES

CGT 214

3 Credits

22 hours of lecture

22 hours of lab

Practical experience and understanding of the business of design and freelancing. Emphasis on professional practices and processes. Instructor-supervised professional project development working with clients to design print and web-based communications. May include industry field trips, interviews, research, online or in-person events and team-based projects. Prerequisite: Consent of Instructional Unit. [GE]

CAPSTONE PRACTICUM

CGT 240

3 Credits

11 hours of lecture

44 hours of lab

An opportunity to extend your knowledge through the study of selected topics in your major area of study and to produce a comprehensive portfolio project. Projects must be pre-approved with the instructor. Prerequisite: Consent of Instructional Unit. [GE]

SELECTED TOPICS

CGT 280

1 - 5 Credits

55 hours of lecture

The course focuses on selected topics in Computer Graphics Technology. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedules. Prerequisite: Consent of Instructional Unit.

SPECIAL PROJECTS

CGT 290

1 - 3 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit.

Computer Science

ENGINEERING AND COMPUTER SCIENCE ORIENTATION

CSE 101 1 Credits

22 hours of lab

Orientation for students interested in Engineering and Computer Science. Topics include exposure to Engineering and Computer Science educational/career opportunities and challenges, with emphasis on effective planning, communication, teamwork appropriate to these career fields. Credit not allowed for both CSE 101 and ENGR 101. [SE]

INTRO TO ELECTRICAL/COMPUTING

CSE 120 5 Credits

44 hours of lecture

33 hours of lab

Introduction to electrical/computer science and engineering processes, principles, problem-solving techniques, and contemporary tools. Applies in-class learning to hands-on projects and explores current industry trends and implications. Prerequisite: MATH 103. [Q, SE]

INTRODUCTION TO C

CSE 121 5 Credits

55 hours of lecture

Introduction to the C programming language. Emphasis on program design, verification, and testing. Programming related concepts in computer science will be covered. Prerequisite: A grade of "C" or better in MATH& 151 (MATH 113), ENGR 120, CSE 120, ENGR 109 (ENGR 111) or CTEC 121; or consent of Instructional Unit. [Q, SE]

COMPUTER SCIENCE I C++

CS& 131 5 Credits

55 hours of lecture

Introduction to the C++ programming language. Emphasis on object-oriented programming (OOP) design principles and their implementation in C++, addressing issues of reusability, efficiency, and style. Prerequisite: A grade of "C" or better in CSE 121 or CTEC 125, or consent of Instructional Unit. [Q, SE]

COMPUTER SCIENCE I JAVA

CS& 141 5 Credits

55 hours of lecture

Introduction to the Java programming language. Emphasis on object-oriented design and development of portable, multithreaded, event-driven software. Prerequisite: A grade of "C" or better in CSE 121 or CTEC 125, or consent of Instructional Unit. [CP, SE]

INTRODUCTION TO DATA STRUCTURES

CSE 222 5 Credits

55 hours of lecture

Fundamentals of data structures and advanced programming techniques used in high-level languages such as C. Topics: trees, heaps, hash tables, sorting, searching, recursion, and algorithm analysis. Prerequisite: A grade of "C" or better in CSE 121 or CTEC 125, or consent of Instructional Unit. [Q, SE]

DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMING

CSE 223 5 Credits

55 hours of lecture

Study of data structures and the analysis of algorithms, object-oriented programming, concurrency, memory management. Prerequisite: A grade of "C" or better in CSE 222 or CTEC 222, and MATH 205 and MATH& 152 (MATH 211). [Q, SE]

PROGRAMMING TOOLS

CSE 224 5 Credits

55 hours of lecture

Study of tools and techniques that facilitate programming and debugging, including debuggers, profilers, and scripting. Prerequisite: A grade of "C" or better in CSE 222 or CTEC 222, or consent of Instructional Unit. [Q, SE]

SPECIAL PROJECTS

CSE 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [SE]

Computer Science & Engineering

ENGINEERING AND COMPUTER SCIENCE ORIENTATION

CSE 101

1 Credits

22 hours of lab

Orientation for students interested in Engineering and Computer Science. Topics include exposure to Engineering and Computer Science educational/career opportunities and challenges, with emphasis on effective planning, communication, teamwork appropriate to these career fields. Credit not allowed for both CSE 101 and ENGR 101.

[SE]

INTRO TO ELECTRICAL/COMPUTING

CSE 120

5 Credits

44 hours of lecture

33 hours of lab

Introduction to electrical/computer science and engineering processes, principles, problem-solving techniques, and contemporary tools. Applies in-class learning to hands-on projects and explores current industry trends and implications. Prerequisite: MATH 103. [Q, SE]

INTRODUCTION TO C

CSE 121

5 Credits

55 hours of lecture

Introduction to the C programming language. Emphasis on program design, verification, and testing. Programming related concepts in computer science will be covered. Prerequisite: A grade of "C" or better in MATH& 151 (MATH 113), ENGR 120, CSE 120, ENGR 109 (ENGR 111) or CTEC 121; or consent of Instructional Unit.

[Q, SE]

INTRODUCTION TO DATA STRUCTURES

CSE 222

5 Credits

55 hours of lecture

Fundamentals of data structures and advanced programming techniques used in high-level languages such as C. Topics: trees, heaps, hash tables, sorting, searching, recursion, and algorithm analysis. Prerequisite: A grade of "C" or better in CSE 121 or CTEC 125, or consent of Instructional Unit. [Q, SE]

DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMING

CSE 223

5 Credits

55 hours of lecture

Study of data structures and the analysis of algorithms, object-oriented programming, concurrency, memory management. Prerequisite: A grade of "C" or better in CSE 222 or CTEC 222, and MATH 205 and MATH& 152 (MATH 211). [Q, SE]

PROGRAMMING TOOLS

CSE 224

5 Credits

55 hours of lecture

Study of tools and techniques that facilitate programming and debugging, including debuggers, profilers, and scripting. Prerequisite: A grade of "C" or better in CSE 222 or CTEC 222, or consent of Instructional Unit. [Q, SE]

SPECIAL PROJECTS

CSE 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [SE]

Computer Technology

INTRODUCTION TO COMPUTING

CTEC 100

3 Credits

33 hours of lecture

Overview of computer information systems. Introduces computer hardware, communications, systems, and human resources, exploring their integration and application in society. Extensive coverage of terminology. Class constitutes a general introduction to computer systems and how they are used. [SE]

COMPUTING ESSENTIALS

CTEC 101

2 Credits

22 hours of lecture

Introduction to basic skills and problem solving involved with computer hardware, operating systems, and application programs with a special emphasis on conventions and skills universal to a variety of computing settings and skills which promote portability between systems and applications. Provides an overview of key skills in a variety of operating system environments and digital interactive settings. Skills and topics include: essential interactions in major operating system environments, basic hardware components of a personal computer system, an overview of file formats and management with an emphasis on backup and portable document strategies, basic interactions in e-mail and worldwide web including how to document and save web pages, and a survey of the purposes of various types of application programs. [GE]

INTRODUCTION TO WINDOWS

CTEC 102

3 Credits

33 hours of lecture

Introduction to the Windows GUI environment. Topics covered include: Windows startup, desktop and resource management, troubleshooting and Windows utilities. Work with graphics, perform object linking and embedding, and develop familiarity with the resources in Network Neighborhood. [GE]

INTRODUCTION TO MAC/OS

CTEC 103

3 Credits

33 hours of lecture

Introduction to the Macintosh operating system. Course emphasizes the feel and function of the Macintosh, conveying the Macintosh as a visual environment. Visual cues and identification of the concepts that make a Macintosh unique will be stressed. [GE]

PC SUPPORT CUSTOMER SERVICE SKILLS

CTEC 104

3 Credits

33 hours of lecture

Communication skills for working in a technical environment. Topics covered: professional ethics and behavior, health and safety issues, and developing a service attitude. [GE]

COMMAND LINE ESSENTIALS FOR WINDOWS AND UNIX

CTEC 110

3 Credits

33 hours of lecture

Preparation to interact with either a Windows System Command Prompt or a UNIX or UNIX-like Shell Prompt as a knowledgeable end-user. Prerequisite: Eligibility for ENGL 098. [GE]

INTERNET RESEARCH AND LIVING ONLINE

CTEC 115

2 Credits

22 hours of lecture

Introduction to global networking and the Internet from the student users' perspective, emphasizing basic skills required to do research and participate as members of the Internet community. Topics include network fundamentals, strategies for locating, analyzing and evaluating information, electronic mail, Internet-based communities, social, legal and ethical issues regarding Internet interactions. [GE]

BEGINNING PROGRAMMING

CTEC 120

2 Credits

22 hours of lecture

Introduction to programming concepts central to designing and writing elementary programs using the Alice programming language. Emphasis on problem solving skills; programming assignments require substantial time to complete. [SE]

INTRO TO PROGRAMMING & PROBLEM SOLVING

CTEC 121

5 Credits

55 hours of lecture

Fundamental concepts related to designing and writing computer programs and procedures. Topics covered include: problem-solving techniques, program design, coding, debugging, testing and documentation. The course stresses concepts common to all programming. Prerequisite: Eligibility for ENGL& 101 and a grade of “C” or better in MATH 095. CTEC 120 recommended. [Q, SE]

HTML FUNDAMENTALS

CTEC 122

3 Credits

33 hours of lecture

Introduction to website development through the mastery of the fundamentals of HTML, XHTML, and CSS coding for web pages. Intended to give the student the basic skills required to hand-code web pages from scratch. A four-page website will be developed. Topics include: text editors, essential elements, images, links, lists, forms, tables, and CSS-based page layout. [GE]

VISUAL BASIC .NET I

CTEC 124

5 Credits

55 hours of lecture

Introduction to designing, creating, and debugging Microsoft Windows applications using Visual Basic .Net. Concepts of object oriented programming, user-interface design, and data access are covered. Focuses on developing applications in the Visual Studio.Net environment. Prerequisite: A grade of “C” or better in CTEC 121, or consent of Instructional Unit. [SE]

INTRODUCTION TO WEB SCRIPTING

CTEC 126

5 Credits

55 hours of lecture

Introduction to using scripting to add functionality to HTML documents (Web pages). Includes an overview of current scripting languages and techniques. Prerequisite: A grade of “C” or better in CTEC 121 and CTEC 122. [GE]

INTRODUCTION TO PHP

CTEC 127

4 Credits

44 hours of lecture

Introduction to PHP, a server-side scripting language offering tools for dynamic website development, to create features like shopping carts, login authentication, and database lookups. Topics include HTML/PHP integration, the syntax of PHP, methods of structuring a dynamic website, and how to integrate databases. Prerequisite: A grade of “C” or better in CTEC 121 and CTEC 122. [GE]

INTRODUCTION TO UNIX

CTEC 140

5 Credits

55 hours of lecture

An introduction to the structure and use of the UNIX operating system. Topics covered include: file management, common utilities, and (basic) shell programming. Prerequisite: A grade of “C” or better in MATH 090 or 091, or consent of Instructional Unit. [GE]

UNIX SYSTEM ADMINISTRATION

CTEC 141

5 Credits

55 hours of lecture

Fundamental concepts, ideas and practices of administrating the UNIX operating system. Topics include account management, file systems, startup and shutdown, printing, security, backups, configuration, optimization and basic networking. Prerequisite: A grade of "C" or better in CTEC 140, or consent of Instructional Unit. [GE]

UNIX POWER TOOLS

CTEC 143

5 Credits

55 hours of lecture

Continuing skills development using various basic UNIX tools in the shell environment; building on skills developed in prerequisite courses, students learn about shell scripts, sed, awk, and regular expressions; preparation for using UNIX or UNIX-like system power tools. Prerequisite: A grade of "C" or better CTEC 121 and CTEC 140, or consent of Instructional Unit. [GE]

INTRO TO LOCAL AREA NETWORKS

CTEC 150

3 Credits

33 hours of lecture

Introduction to the terminology, applied concepts and basic operations of local area network systems. Focus on interactions with Windows network servers and peer to peer workstations. [GE]

INTRODUCTION TO ACCESS

CTEC 180

3 Credits

33 hours of lecture

Introductory and intermediate skills for Microsoft Access for people who use and maintain Access databases. Topics include creation of tables, queries, forms and subforms, reports and subreports, and macros using both design view and wizards. Introduction to special fields such as memos, OLE and drop-down menus within the tables and forms; and using validation rules and referential integrity to insure the data is 'clean.' [GE]

INTRODUCTION TO DATABASE DESIGN USING ACCESS

CTEC 181

5 Credits

55 hours of lecture

Database design for those who need to design, create, and maintain databases. Presents the information level databases design concepts relative to any relational database structure (DBMS), and then focuses on the physical level design of a database using MS Access as the DBMS. Topics covered are: Intro to DB Management, The Relational Model Database Normalization Design Methodology, and Creation of Tables, Queries, Forms, Reports and Macros using MS Access. This is a beginning course and requires no prior experience in database design or Access. It does assume prior knowledge of MS Windows. [GE]

DATABASE WEB TECHNOLOGIES

CTEC 185

5 Credits

55 hours of lecture

Fundamentals of databases for web development, including foundational skills in database design and implementation as it pertains to the development and support of websites. Topics include syntax and semantics of database query languages, role of SQL in web development, and integration of PHP with an SQL database. Concurrent enrollment in CTEC 227 highly recommended. Prerequisite: A grade of "C" or better in CTEC 121, 122 and 127.

COOPERATIVE WORK EXPERIENCE

CTEC 199

1 - 5 Credits

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Prerequisite: Consent of Instructional Unit and completion of or concurrent enrollment in HDEV 195, 198 or 200 required. [GE]

PC HELP DESK WORK EXPERIENCE

CTEC 200

1 - 5 Credits

11 hours of lecture

Work experience for Computer Support Specialist students. Students will work at the Student run CTEC Help Desk. Days and times are arranged to meet both student schedules and the help desk mission. Students earning the CSS degree or CSS certification are required to sign up for at least 2 credits and will be expected to work 3 hours per week per credit at the Student Help Desk. Other course work outside of Help Desk shifts will be required.

Prerequisite: A grade of "C" or better in CTEC 104 or consent of Instructional Unit. [GE]

A+PC OPERATING SYSTEM TECHNOLOGIES

CTEC 201

5 Credits

55 hours of lecture

Intermediate course in technical topics related to computer operating system fundamentals. Covers installation, configuration and upgrading operating systems. Includes diagnosing problems and general troubleshooting skills. Basic network capabilities of operating systems are covered. Designed to help prepare students for A+ hardware certification exam. Prerequisite: A grade of "C" or better or concurrent enrollment in ELEC 107, or consent of Instructional Unit. [GE]

A+ ESSENTIALS

CTEC 210

6 Credits

66 hours of lecture

Technical topics related to computer hardware and operating system fundamentals as defined by COMP-TIA A+ certification. Includes identification and installation of hardware; installation, configuration and upgrading operating systems; diagnosing problems and general troubleshooting skills; and basic network capabilities of operating systems. Prerequisite: A grade of "C" or better in CTEC 110. [GE]

DESKTOP SUPPORT ESSENTIALS

CTEC 220

5 Credits

55 hours of lecture

Introduction to skills and knowledge necessary to support end users by providing direct, front-line, corporate and home end-user support as defined by the Microsoft Desktop Support Technician certification (MCDST). Topics include troubleshooting, hardware and software basics, and elements of desktop support for different versions of MS Windows. Prerequisite: A grade of "C" or better in CTEC 210 or consent of Instructional Unit. [GE]

INTERMEDIATE VISUAL BASIC

CTEC 224

5 Credits

55 hours of lecture

Intermediate course in Visual Basic Programming. Topics include: Custom controls, error handling and debugging, interface design, graphics and multimedia, working with databases and Windows API functions. Prerequisite: A grade of "C" or better in CTEC 123, or consent of Instructional Unit. [SE]

C# .NET

CTEC 226

5 Credits

55 hours of lecture

Fundamental concepts of designing and writing C# ("C-sharp") computer programs. Topics covered include: problem solving techniques, forms and object-oriented program design, coding, debugging, testing and documentation. Emphasizes understanding and use of Visual Studio Integrated Development Environment (IDE). Prerequisite: A grade of "C" or better in CTEC 121. CTEC 124 is recommended. [GE]

ADVANCED PHP

CTEC 227

4 Credits

44 hours of lecture

Introduction to advanced coding methods in PHP: XML integration, developing classes, application structures, portability, CVS, security, database connectivity, and the use of advanced features such as image manipulation; emphasis on Internet research for problem solving. Prerequisite: A grade of "C" or better in CTEC 127, or consent of Instructional unit. [GE]

INTRODUCTION TO NETWORK SECURITY

CTEC 230

5 Credits

55 hours of lecture

Introduction to concepts and fundamentals of network security; topics include attacks, identify theft, and viruses. Focus on activities showing ways hackers enter networks and how security technologies work. Network+ Certification satisfies the prerequisite of CTEC 151. Prerequisite: A grade of "C" or better in DNET 121 or CTEC 151, or consent of Instructional Unit. [GE]

UNIX NETWORK ADMINISTRATION & SECURITY

CTEC 240

5 Credits

55 hours of lecture

Skills development for configuring and administering a TCP/IP network. Topics include configuring basic networking, client services, file sharing services, major network services, cryptography, user, file, and network security, and other relevant topics. Prerequisite: A grade of "C" or better in CTEC 141, or consent of Instructional Unit. [GE]

SCRIPTING WITH PERL

CTEC 241

5 Credits

55 hours of lecture

Introduction to the Perl language in the Unix environment. Topics include text processing, report generation, system administration tasks, and CGI scripting for interactive web pages. Projects emphasize hands-on, practical applications of the language. Previous programming experience and knowledge of basic HTML strongly recommended. Prerequisite: A grade of "C" or better in CTEC 140, or consent of Instructional Unit. [GE]

MANAGING WINDOWS SERVER 2003 ENVIRONMENT

CTEC 271

5 Credits

55 hours of lecture

Provides students with the knowledge and skills to manage accounts and resources in a Microsoft Windows Server TM 2003 environment; covers tasks for managing users, computer, and group accounts; managing access to network resources; managing printers; managing an organizational unit in a network based on Active Directory TM directory service; and implementing Group Policy to manage users and computers. Network+ Certification satisfies the prerequisite of CTEC 151. A+ Certification satisfies the prerequisite of CTEC 201. This course (along with CTEC 272) will help prepare student for Microsoft Certification Exam #70-290. Concurrent enrollment in CTEC 272 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in CTEC 151 and CTEC 201, consent of Instructional Unit. [GE]

SELECTED TOPICS

CTEC 280

1 - 6 Credits

66 hours of lecture

Varying topics. May be repeated for credit. [GE]

DATABASE IMPLEMENTATION USING ACCESS

CTEC 281

5 Credits

55 hours of lecture

Instruction in advanced database applications and Microsoft extensions. Topics include Visual Basic for applications, Data Access objects, OLE controls, creation of add-ins, security implementation, database replication for synchronization, accessing, external data sources, and managing client/server issues. Prerequisite: A grade of "C" or better in CTEC 181 and CTEC 123, consent of Instructional Unit. [GE]

PROGRAMMING WITH SQL

CTEC 282

5 Credits

55 hours of lecture

SQL language and syntax. Design, installation, and maintenance of the SQL database as a programmatic datasource using Microsoft SQL Server 7.0. Includes programming techniques that integrate SQL Server 7.0 with the Microsoft Active X Data Objects (ADO) and Data Management Objects (DMO) COM libraries. Prerequisite: A grade of "C" or better in CTEC 181 and CTEC 224, or consent of Instructional Unit. [GE]

SPECIAL PROJECTS

CTEC 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of instructional unit. [GE]

CAPSTONE EXPERIENCE

CTEC 295

3 Credits

33 hours of lecture

Capstone experience for CTEC degree and certificate, to assess and refine final skill set. Focus on developing and engaging in learning experiences to demonstrate and expand workplace skills and abilities. Development of employment-package resources and job-acquisition strategies. Prerequisite: Consent of Instructional Unit. [GE]

Construction Technology

BLUEPRINT READING

CNST 106

3 Credits

33 hours of lecture

Construction blueprint reading for residential and light commercial. [GE]

JOB ESTIMATING AND SCHEDULING

CNST 108

3 Credits

33 hours of lecture

Bid preparation activities from initial receipt of drawings and specifications, to the final submission of the bid to project owner. Scheduling of subcontractors to complete the project. Prerequisite: CNST 106 or consent of Instructional Unit. [GE]

CONSTRUCTION TECHNOLOGY I

CNST 111

6 Credits

66 hours of lecture

Basic concepts and theories of residential and commercial construction. Including design, finance, construction (general, mechanical, specialty), and marketing. [GE]

CONSTRUCTION TECHNOLOGY I LAB

CNST 112

6 Credits

132 hours of lab

Application of the concepts and theories presented in CNST 111. Concurrent enrollment in CNST 111 required. [GE]

CONSTRUCTION TECHNOLOGY II

CNST 121

6 Credits

66 hours of lecture

Basic concepts and theories of residential and commercial construction including design, finance, construction (general, mechanical, specialty), and marketing. Prerequisite: CNST 111. [GE]

CONSTRUCTION TECHNOLOGY II LAB

CNST 122

6 Credits

132 hours of lab

Application of the concepts and theories presented in CNST 121. Concurrent enrollment in CNST 121 required. Prerequisite: CNST 112. [GE]

CONSTRUCTION TECHNOLOGY III

CNST 131

6 Credits

66 hours of lecture

Basic concepts and theories of residential and commercial construction including design, finance, construction (general, mechanical, specialty), and marketing. Prerequisite: CNST 121. [GE]

CONSTRUCTION TECHNOLOGY III LAB

CNST 132

6 Credits

132 hours of lab

Application of the concepts and theories presented in CNST 131. Concurrent enrollment in CNST 131 required.
Prerequisite: CNST 122. [GE]

COOPERATIVE WORK EXPERIENCE

CNST 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

CONSTRUCTION TECHNOLOGY IV

CNST 211

6 Credits

66 hours of lecture

Basic concepts and theories of residential and commercial construction including design, finance, construction (general, mechanical, specialty), and marketing. Prerequisite: CNST 131. [GE]

CONSTRUCTION TECHNOLOGY IV LAB

CNST 212

6 Credits

132 hours of lab

Application of the concepts and theories presented in CNST 211. Concurrent enrollment in CNST 211 required.
Prerequisite: CNST 132. [GE]

CONSTRUCTION TECHNOLOGY V

CNST 221

6 Credits

66 hours of lecture

Basic concepts and theories of residential and commercial construction including design, finance, construction (general, mechanical, specialty), and marketing. Concurrent enrollment Lab required. Prerequisite: CNST 211. [GE]

CONSTRUCTION TECHNOLOGY V LAB

CNST 222

6 Credits

132 hours of lab

Application of the concepts and theories presented in CNST 221. Concurrent enrollment in CNST 221 required.
Prerequisite: CNST 212. [GE]

CONSTRUCTION TECHNOLOGY VI

CNST 231

6 Credits

66 hours of lecture

Basic concepts and theories of residential and commercial construction including design, finance, construction (general, mechanical, specialty), and marketing. Prerequisite: CNST 221. [GE]

CONSTRUCTION TECHNOLOGY VI LAB

CNST 232

6 Credits

132 hours of lab

Application of the concepts and theories presented in CNST 231. Concurrent enrollment in CNST 231 required.
Prerequisite: CNST 222. [GE]

SPECIAL PROJECTS

CNST 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

CPR

CHILD CARE CPR

CPR 033

0 Credits

6 hours of lecture

Pediatric CPR - specifically designed for parents and child care providers. Focus is on home safety, infant and child CPR. This course fulfills the state licensing requirement for child care providers.

Criminal Justice

INTRODUCTION TO CRIMINAL JUSTICE

CJ& 101

5 Credits

55 hours of lecture

Philosophy and history of criminal justice. Interrelations of police, courts, and corrections. Discussion of career opportunities and qualifications for various careers in criminal justice. Prerequisite: SOC& 101 (SOC 101) or PSYC& 100 (PSYC 101). [SE,SS]

INTRODUCTION TO CORRECTIONS

CJ& 105

3 Credits

33 hours of lecture

An overview of local, state and federal correctional agencies. The historical development of correctional policies and practices. The exploration of debates surrounding the role and effectiveness of criminal sentences, institutional procedures, technological developments, special populations, etc. [SE, SS]

Dental Hygiene

DENTAL HYGIENE COMPETENCIES LAB

DH 013

1 Credits

22 hours of lab

Application of concepts and topics presented in DH 111, 112, 113, 114, 211, 212, and 213. Continued development of skills and techniques related to dental hygiene competencies. Concurrent enrollments in DH 111, 112, 113, 114, 211, 212 or 213 required.

DENTAL ANATOMY

DH 101

3 Credits

33 hours of lecture

Anatomy, embryology, and histology of the human dentition and surrounding oral structures as they apply to the practice of dental hygiene. Emphasis on tooth development and associated vocabulary, tooth identification and differentiation, and tooth numbering systems. Prerequisite: Consent of the Dental Hygiene Program. [GE]

HEAD AND NECK ANATOMY

DH 102

3 Credits

33 hours of lecture

6 hours of lab

Embryological, histological and anatomical development of the head and neck as it applies to the practice of dental hygiene. [GE]

ORAL HEALTH EDUCATION

DH 103

2 Credits

22 hours of lecture

Development of skills essential to the dental health educator and dental health resource person. Concepts of teaching, learning and motivation for groups and individuals. [GE]

INTRODUCTION TO DENTAL MATERIALS/ASSISTING

DH 104 3 Credits
22 hours of lecture 22 hours of lab

Introduction to properties and manipulation of basic restorative materials including resin, bases, liners, varnishes, cements, and sealants. Introduction to four-handed chairside assisting, study model preparation and pit and fissure sealant application. Clinical practice through assisting in restorative situations. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES I

DH 111 6 Credits
33 hours of lecture 66 hours of lab

Basic theory and pre-clinical practice at the introductory level in patient assessment, care planning, management, and periodontal therapy, which includes prevention and control of oral disease, and proper safety and infection control procedures. Prerequisite: Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES II

DH 112 5 Credits
17 hours of lecture 77 hours of lab

Clinical practice at the introductory level in patient assessment, care planning, management, and periodontal therapy, which includes preventative and control of oral disease, and proper safety and infection control procedures. Prerequisite: DH 111 and Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES III

DH 113 5 Credits
17 hours of lecture 77 hours of lab

Clinical practice at the introductory and development levels in patient assessment, care planning, management, and periodontal therapy, which includes prevention and control of oral disease, and proper safety and infection control procedures. Prerequisite: DH 112 and Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES IV

DH 114 4 Credits
97 hours of lab

Clinical practice at the introductory and development levels in patient assessment, care planning, management, and periodontal therapy, which includes prevention and control of oral disease, and proper safety and infection control procedures. Concurrent enrollment in DH 114L required. Prerequisite: DH 113 and Consent of the Dental Hygiene Program. [GE]

ORAL RADIOLOGY I

DH 122 3 Credits
22 hours of lecture 22 hours of lab

Radiographic theory, equipment, patient safety, and techniques for exposing, processing, and mounting dental radiographs. Prerequisite: Consent of the Dental Hygiene Program. [GE]

ORAL RADIOLOGY II

DH 123 1 Credits
22 hours of lab

Second in a series on radiographic theory application and radiographic image interpretation. Continued experience in exposing, processing and mounting, and critiquing dental radiographs. Prerequisite: DH 122 and consent of the Dental Hygiene program. [GE]

ORAL RADIOLOGY III

DH 124 2 Credits
22 hours of lecture

Third in a series on radiographic theory application and image interpretation. Includes principles of radiation biology, quality assurance, radiation health and protection. Introduction of principles of contemporary panoramic radiographic techniques and comprehensive analysis of panoramic images. Prerequisite: A grade of "C" or better in DH 123 and DH 143. [GE]

RESTORATIVE DENTISTRY I

DH 134 2 Credits
11 hours of lecture 22 hours of lab
Introduction to restorative techniques with emphasis on placement of amalgam and clinical experience with sealant application. Prerequisite: Consent of the Dental Hygiene Program. [GE]

ORAL MEDICINE

DH 141 2 Credits
22 hours of lecture
Introduction to the evaluation of medical/dental histories in preparation for dental hygiene treatment. Includes the most commonly encountered oral and systemic diseases. [GE]

GENERAL AND ORAL PATHOLOGY

DH 143 3 Credits
33 hours of lecture
Fundamentals of oral pathology including the inflammatory processes, tumor development, metabolic pathways and developmental disturbances. Prerequisite: Consent of Instructional Unit. [GE]

ETHICS AND THE PROFESSION

DH 152 1 Credits
11 hours of lecture
Basic ethical principles, ethical problem solving methods, the Principles of Ethics of the American Dental Hygienist Association, and Washington State Laws applicable to the practice of dental hygiene. These elements will enable the student to apply professional attitudes and judgements when treating clinical patients. [GE]

SPECIAL NEEDS POPULATIONS I

DH 154 1 Credits
11 hours of lecture
Issues regarding techniques and strategies for identifying, assessing, and treating patients with special needs and developing technological expertise to access special-needs information through various media. Prerequisite: Consent of the Dental Hygiene Program. [GE]

LOCAL ANESTHESIA & PAIN CONTROL

DH 163 4 Credits
25 hours of lecture 33 hours of lab
Integration of anatomy, physiology, pharmacology and the most commonly encountered emergency procedures as they apply to the administration of local anesthesia. Clinical practice in the administration of local anesthesia is a required component of the course. Weekly clinical lab practice focuses on the 8 most commonly administered injections. Prerequisite: Admission to and Consent of the Dental Hygiene Program.

PERIODONTICS I

DH 171 3 Credits
22 hours of lecture 22 hours of lab
Introduction to histological and clinical characteristics of normal and diseased periodontium. Introduction to tooth accumulated materials and preventive oral aids. [GE]

CARIOLOGY

DH 172 2 Credits
22 hours of lecture
Presentation of cause, progression, and prevention of dental caries with an emphasis on fluoride. [GE]

NITROUS OXIDE SEDATION

DH 174 1 Credits
8 hours of lecture 4 hours of lab
Exploration of nitrous oxide sedation as it applies to the practice of dentistry and dental hygiene. Emphasis on patient evaluation, pharmacodynamics, and administration methods and safety issues. Minimum of three clinical

patient inductions and recoveries required. Meets multi state licensure requirements for the provisions of nitrous oxide and includes 10 hours of lecture, 3 clinical, and 1 hour written final for a total of 14 hours. Prerequisite: Consent of the Dental Hygiene Program. [GE]

PHARMACOLOGY I

DH 181 1 Credits

11 hours of lecture

Introduction to the classification, pharmacodynamics, dosages, and therapeutic effects of drugs most commonly encountered or prescribed by the dental office. Topics include drugs of abuse, autonomic nervous system, gastrointestinal, respiratory, vitamin, and minerals. Prerequisite: Acceptance into the dental hygiene program. [GE]

PHARMACOLOGY II

DH 182 1 Credits

11 hours of lecture

Continuation of the classification, pharmacodynamics, dosages and therapeutic effects for drugs most commonly encountered or prescribed by the dental office. Topics include antimicrobial, antifungal, and antiviral medications, opioid and non-opioid analgesics, and cardiovascular medications. Prerequisite: DH 181. [GE]

PHARMACOLOGY III

DH 183 1 Credits

11 hours of lecture

Continuation of the classification, pharmacodynamics, dosages, and therapeutic effects for drugs most commonly encountered or prescribed by the dental office. Topics include endocrine, psychotherapeutic, sedative/hypnotic, anti-anxiety, anticonvulsants, ophthalmic, anti-neoplastic, immune function, anti-Parkinson, and Alzheimer's disease medications. Prerequisite: DH 182. [GE]

COOPERATIVE WORK EXPERIENCE

DH 199 1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

DENTAL PUBLIC HEALTH I

DH 201 2 Credits

11 hours of lecture

44 hours of lab

A systematic approach to the prevention and control of dental disease and the promotion of oral health through organized community efforts. Practical application of public health techniques in the assessment of the community to establish what types of oral health programs are needed. [GE]

DENTAL PUBLIC HEALTH II

DH 202 2 Credits

11 hours of lecture

44 hours of lab

Continuation of Dental Public Health I. Advanced application of public health concepts to plan, implement and evaluate oral health programs that prevent and control dental disease and promote oral health for a designated population. [GE]

DENTAL PUBLIC HEALTH III

DH 203 1 Credits

22 hours of lab

Continuation of Dental Public Health II. Implementation and evaluation of oral health programs at a variety of community settings. Formerly titled "Community Dental Health II". [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES V

DH 211 9 Credits

198 hours of lab

Clinical practice at the development level in patient assessment, care planning, management, and periodontal therapy,

which includes prevention and control of oral disease, and proper safety and infection control procedures. Concurrent enrollment in DH 211L required. Prerequisite: DH 114 and consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES VI

DH 212 9 Credits
198 hours of lab

Clinical practice at the development and competent levels in patient assessment, care planning, management, and periodontal therapy, which includes prevention and control of oral diseases, and proper safety and infection control procedures. Concurrent enrollment in DH 212L required. Prerequisite: DH 211 and Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES VII

DH 213 10 Credits
220 hours of lab

Clinical practice at the competent level in patient assessment, care planning, management, and periodontal therapy, which includes prevention and control of oral disease, and proper safety and infection control procedures. Concurrent enrollment in DH 213L required. Prerequisite: DH 212 and Consent of the Dental Hygiene Program. [GE]

RESTORATIVE DENTISTRY II

DH 231 5 Credits
22 hours of lecture 66 hours of lab

Laboratory practice in expanded duties as allowed by Washington State Law. Emphasis on placement of amalgam and composite restorations. Prerequisite: DH 134 and Consent of the Dental Hygiene Program. [GE]

RESTORATIVE DENTISTRY III

DH 232 4 Credits
11 hours of lecture 66 hours of lab

Clinical and laboratory practice in expanded duties as allowed by Washington State law; restorative dentistry and associated procedures, dental analgesia, local anesthetic, current dental material evaluation and product selection for use in clinical practice. Prerequisite: DH 231 and Consent of the Dental Hygiene Program. [GE]

RESTORATIVE DENTISTRY IV

DH 233 3 Credits
11 hours of lecture 44 hours of lab

Further perfection of skills and mastery of clinical and laboratory practice in expanded duties as allowed by Washington State law. Completion of restorative capstone project, encompassing depth and breadth of knowledge acquired from supportive course work. Prerequisite: DH 172, 103, 104, 134, 231, 232 and consent of the Dental Hygiene Program. [GE]

SPECIAL NEEDS POPULATIONS II

DH 251 1 Credits
11 hours of lecture

Researching academic, behavioral, and clinical techniques to determine the performance necessary in all phases of patient treatment for a population with special needs. In-depth independent research on a special needs population, as it relates to dental hygiene care. Prerequisite: Consent of the Dental Hygiene Program. [GE]

SPECIAL NEEDS POPULATIONS III

DH 252 1 Credits
11 hours of lecture

Expansion of the research in academic, behavioral, and clinical techniques through the development and presentation of a table clinic in order to determine the performance necessary in all phases of patient treatment for a population with special needs. Prerequisite: Consent of the Dental Hygiene Program. [GE]

SPECIAL NEEDS POPULATIONS IV

DH 253 1 Credits
11 hours of lecture

Focus on behavioral and clinical techniques through case studies and reflection in order to appreciate issues surrounding access to care for patients with special needs. Prerequisite: Consent of the Dental Hygiene Program.

ETHICS AND PRACTICE MANAGEMENT

DH 263 1 Credits
11 hours of lecture

Legal and ethical issues related to dental hygiene. Topics include professional and patient relationships, professional associations, state dental hygiene practice acts, career alternatives and lifelong learning. [GE]

PERIODONTICS II

DH 271 2 Credits
22 hours of lecture

Root morphology and the etiological factors of periodontal diseases. Topics include: host response to, oral structures affected by, the classifications of gingival and periodontal diseases. Current methods and diagnostic aids used to assess and evaluate periodontal disease in a patient will be presented. [GE]

PERIODONTICS III

DH 272 2 Credits
22 hours of lecture

Subjects covered this quarter will be treatment modalities of periodontal disease to include root planing, antimicrobials, lasers, and surgical procedures; HIV and periodontitis, reevaluation and maintenance procedures for the periodontal involved patient. Prerequisite: DH 271 or consent of Instructional Unit. [GE]

SPECIAL PROJECTS

DH 290 1 - 15 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Developmental Education

MATH BASICS I

DVED 021 5 Credits
55 hours of lecture

Study and application of basic math concepts: addition, subtraction, multiplication, division, fractions, decimals. Prerequisite: Recommending score on ASSET placement test or consent of Instructional Unit.

MATH BASICS II

DVED 023 5 Credits
55 hours of lecture

Analysis and application of basic math concepts and operations emphasizing ratio and proportions, percents, measurements, and simple equations. Prerequisite: A grade of "C" or better in DVED 021 or consent of Instructional Unit.

ENGLISH BASICS

DVED 094 5 Credits
55 hours of lecture

Emphasis on writing more fluently, clearly, and correctly. Students build skills through exercises in grammar, writing responses to assigned readings, and planning, organizing, drafting, and revising paragraphs. In-class and out-of-class paragraphs are required. Prerequisite: Recommending score on the College writing skills placement test or consent of Instructional Unit.

SELECTED TOPICS

DVED 099

1 - 5 Credits

55 hours of lecture

Various topics, themes, content in Developmental Education and Reading. Because the content varies, this course is repeatable for credit for different topics.

Diesel Technology

DETROIT DIESEL ELECTRONIC CONTROLS

DIES 093

3 Credits

33 hours of lecture

A study of Detroit diesel electronic controls (DDEC). Basic system component functions and identification, proper trouble shooting procedures, use of specialized trouble shooting tools and equipment.

CUMMINS ENGINES

DIES 096

3 Credits

33 hours of lecture

Specialized training in Cummins engine theory, troubleshooting, tune-up, maintenance, repair, and safety.

GENERATOR SETS

DIES 097

3 Credits

33 hours of lecture

Maintenance, troubleshooting, and repair of generator sets. Safety and theory of operation.

CAT ENGINES

DIES 099

3 Credits

33 hours of lecture

Specialized training in Caterpillar engine theory, tune-up, troubleshooting, maintenance, repair, and safety.

DIESEL FUNDAMENTALS

DIES 111

5 Credits

55 hours of lecture

Introduction to diesel engine construction and principles of operation. Basics of physics and engineering as related to operation of diesel engines. Basic shop tools and safety. [GE]

DIESEL PROCEDURES

DIES 112

10 Credits

55 hours of lecture

110 hours of lab

Disassembly, inspection, assembly, and adjustment of various diesel engines used in highway and off-highway vehicles. Concurrent enrollment in DIES 111 recommended. [GE]

DIESEL ENGINES/FUEL SYSTEMS

DIES 113

5 Credits

55 hours of lecture

Repair, adjustment and testing procedures for diesel engines, components and systems. Introduction to fuel systems used and electronic controls used on modern diesel engines. Concurrent enrollment in DIES 114 recommended. [GE]

DIESEL PROCEDURES

DIES 114

10 Credits

55 hours of lecture

110 hours of lab

Test, adjust, and diagnostics of engines and maintenance practices. Concurrent enrollment in DIES 113 recommended. [GE]

DRIVE TRAINS

DIES 115 5 Credits
55 hours of lecture
Principles of operation and basic construction of drive train components used in on- and off-highway equipment. Concurrent enrollment in DIES 116 recommended. [GE]

DIESEL PROCEDURES

DIES 116 10 Credits
55 hours of lecture 110 hours of lab
Disassembly, inspection, assembly, and adjustments of drive train components. Concurrent enrollment in DIES 115 recommended. [GE]

WHEEL ALIGNMENT

DIES 118 3 Credits
22 hours of lecture 22 hours of lab
Automobile chassis, suspension assemblies, steering systems, wheel balancing, wheel alignment, steering, geometry, headlight aiming and safety. [GE]

BASIC ELECTRICAL

DIES 120 3 Credits
22 hours of lecture 22 hours of lab
Introduction to basic electrical fundamentals needed by technicians to diagnose and repair vehicle electrical systems. Concurrent enrollment in DIES 112. [GE]

ELECTRONIC ENGINE MANAGEMENT SYSTEMS

DIES 121 3 Credits
22 hours of lecture 22 hours of lab
Introduction to electronic engine management systems and emission technology. Concurrent enrollment in DIES 114. Prerequisite: A grade of "C" or better in DIES 120. [GE]

ELECTRONIC VEHICLE CONTROL SYSTEMS

DIES 122 3 Credits
22 hours of lecture 22 hours of lab
Introduction to electronic controls used in diesel and heavy equipment. Concurrent enrollment in DIES 116. Prerequisite: A grade of "C" or better in DIES 120. [GE]

INDUSTRIAL HYDRAULICS

DIES 135 3 Credits
33 hours of lecture
Hands-on experience in recognizing, using, and troubleshooting hydraulic pumps, valves, motors, filters, hoses, piping, and fittings in hydraulic systems. [GE]

COOPERATIVE WORK EXPERIENCE

DIES 199 1 - 5 Credits
165 hours of clinical
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

ELECTRICAL/ELECTRONIC SYSTEMS

DIES 221 5 Credits
55 hours of lecture
Charging, starting, lighting, and control circuits and components used on heavy equipment and highway trucks. Concurrent enrollment in DIES 222 recommended. [GE]

DIESEL PROCEDURES

DIES 222 6 Credits
33 hours of lecture 66 hours of lab
Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. Concurrent enrollment in DIES 221 recommended. [GE]

HYDRAULIC SYSTEMS

DIES 223 5 Credits
55 hours of lecture
Theory and principles of operation of mobile hydraulic systems. Concurrent enrollment in DIES 224 recommended. [GE]

DIESEL PROCEDURES

DIES 224 10 Credits
55 hours of lecture 110 hours of lab
Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. Concurrent enrollment in DIES 223 recommended. Prerequisite: DIES 222 or consent of Instructional Unit. [GE]

BRAKES, STEERING, AND SUSPENSION

DIES 225 5 Credits
55 hours of lecture
Hydraulic and air brake systems, steering and suspension used on highway trucks, and heavy equipment. Concurrent enrollment in DIES 226 recommended. [GE]

DIESEL PROCEDURES

DIES 226 10 Credits
55 hours of lecture 110 hours of lab
Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. Concurrent enrollment in DIES 225 recommended. Prerequisite: DIES 224 or consent of Instructional Unit. [GE]

SELECTED TOPICS

DIES 280 1 - 5 Credits
55 hours of lecture
The course focuses on selected topics in Diesel. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule. [GE]

SPECIAL PROJECTS

DIES 290 1 - 5 Credits
Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit required. [GE]

Digital Imaging

COMPUTED TOMOGRAPHY CLINICAL PRACTICUM

DIMAG 271 4 Credits
132 hours of clinical
Clinical Practicum for those seeking ARRT certification in Computed Tomography (CT). This course may be repeated if student does not attain enough competencies to qualify for the ARRT exam during one rotation. Prerequisite: Currently enrolled in or completion of DIMAG 275 and employed as an RT or CNMT or consent of Instructional Unit. [GE]

COMPUTED TOMOGRAPHY PHYSICS AND INSTRUMENTATION

DIMAG 275 3 Credits
33 hours of lecture
Advanced course for those seeking training in Computed Tomography. Open only to those currently registered as

Radiologic Technologists or Nuclear Medicine Technologists through ARRT or CNMT. Prerequisite: Currently licensed RTs or CNMTs or permission of Instructional Unit. [GE]

CROSS SECTIONAL ANATOMY FOR IMAGING PROFESSIONAL

DIMAG 279

3 Credits

33 hours of lecture

Sectional human anatomy of the body in various planes of section using all Diagnostic Imaging modalities. Emphasis on the abdominopelvic cavity and the brain using CT and MRI. [GE]

COMPUTED TOMOGRAPHY REGISTRY REVIEW

DIMAG 296

1 Credits

11 hours of lecture

An advanced course for those seeking certification and training in Computed Tomography. Comprehensive review of all major areas indicated on the ARRT CT examination outline. Open to currently working and registered Radiologic Technologists or Nuclear Medicine Technologists with ARRT or CNMT certification. [GE]

Drama

INTRO TO THEATRE

DRMA& 101

3 Credits

33 hours of lecture

Overview of theatre. Roles of the actor, director, designers, and playwrights. Evolution of theatre through the ages. [HA, SE]

ACTING I - DRAMA

DRMA 140

4 Credits

33 hours of lecture

22 hours of lab

Techniques and principles of acting. [HB, SE]

ACTING II - THEATRE

DRMA 141

4 Credits

33 hours of lecture

22 hours of lab

Continuation of DRMA 140. Emphasis on scene study, characterization, and period styles of acting. Prerequisite: DRMA 140 (or THEA 140). [HB, SE]

ACTING III - TELEVISION

DRMA 142

3 Credits

22 hours of lecture

22 hours of lab

Techniques for television and film performance. Basic production realities relevant to actors. Students will perform before the cameras and, when possible, work behind them. Prerequisite: A grade of "C" or better in DRMA 140 (or THEA 140). [HB, SE]

CHILDREN'S THEATRE I

DRMA 143

5 Credits

22 hours of lecture

66 hours of lab

College students performing for children. Examine, produce, perform, and tour a play for children. Performance styles for children, touring scenery techniques, and tour management. Formerly THEA 143. [HB, SE]

CHILDREN'S THEATRE II

DRMA 144

5 Credits

22 hours of lecture

66 hours of lab

College students performing for children. Examine, produce, perform, and tour a play for children. Performance styles for children, touring scenery techniques, and tour management. Prerequisite: DRMA 143 (or THEA 143). [HB,SE]

CHILDREN'S THEATRE III

DRMA 145 5 Credits
22 hours of lecture 66 hours of lab
College students performing for children. Examine, produce, perform, and tour a play for children. Performance styles for children, touring scenery techniques and tour management. Prerequisite: DRMA 144 (or THEA 144). [HB, SE]

BASIC STAGECRAFT

DRMA 150 4 Credits
22 hours of lecture 22 hours of lab
Principles and techniques of scenery construction and painting. Students will also learn the use of shop tools. [HB, SE]

STAGE MAKE-UP

DRMA 152 3 Credits
33 hours of lecture
Design and application of stage make-up. Formerly THEA 152. [HB, SE]

PLAY PRODUCTION AND PERFORMANCE I

DRMA 171 2 Credits
44 hours of lab
Practical experience with varied aspects of actual theatrical production. Acting, directing, scene construction, lighting, makeup and publicity. Class will begin the third week of the quarter. [HB, SE]

PLAY PRODUCTION AND PERFORMANCE II

DRMA 172 2 Credits
44 hours of lab
Practical experience with varied aspects of actual theatrical production. Acting, directing, scene construction, lighting, makeup and publicity. Class will begin the third week of the quarter. Prerequisite: DRMA 171 (or THEA 171). [HB, SE]

PLAY PRODUCTION AND PERFORMANCE III

DRMA 173 2 Credits
44 hours of lab
Practical experience with varied aspects of actual theatrical production. Acting, directing, scene construction, lighting, makeup and publicity. Class will begin the third week of the quarter. Prerequisite: DRMA 172 (or THEA 172). [HB, SE]

COOPERATIVE WORK EXPERIENCE

DRMA 199 1 - 5 Credits
165 hours of clinical
Supervised work experience in the community, completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

IMPROVISATION FOR LIFE AND THEATER

DRMA 240 4 Credits
33 hours of lecture 22 hours of lab
Introduction to theater improvisation techniques for the stage as well as business, educational, and therapeutic settings. Topics cover role plays, theater games, ice breakers, and storytellings. Activities include lecture, demonstration, exercise, and performance. Students both lead and participate in these activities. Students build skills in creativity, spontaneity, facilitation, collaboration, performance, problem-solving, and positive, whole-brained thinking. No acting or improv experience necessary. [HB, SE]

CHILDREN'S THEATRE IV

DRMA 243 5 Credits
22 hours of lecture 66 hours of lab
Study, produce and perform a play for children. Performance styles for children, touring scenery techniques and tour management. Prerequisite: DRMA 145 (or THEA 145). [HB, SE]

CHILDREN'S THEATRE V

DRMA 244 5 Credits
22 hours of lecture 66 hours of lab
Study, produce and perform a play for children. Performance styles for children, touring scenery techniques and tour management. Prerequisite: DRMA 243 (or THEA 243). [HB, SE]

CHILDREN'S THEATRE VI

DRMA 245 5 Credits
22 hours of lecture 66 hours of lab
Study, produce and perform a play for children. Performance styles for children, touring scenery techniques and tour management. Prerequisite: DRMA 244 (or THEA 244). [HB, SE]

STAGE LIGHTING DESIGN

DRMA 250 3 Credits
33 hours of lecture
Techniques and principles of stage and TV lighting design. Use of instruments and light control systems with a special emphasis on computerized light control. [HB, SE]

PLAY PRODUCTION AND PERFORMANCE IV

DRMA 271 2 Credits
44 hours of lab
Practical experience with varied aspects of actual theatrical production. Acting, directing, scene construction, lighting, makeup and publicity. Class will begin the third week of the quarter. Prerequisite: DRMA 173 (or THEA 173). [HB, SE]

PLAY PRODUCTION AND PERFORMANCE V

DRMA 272 2 Credits
44 hours of lab
Practical experience with varied aspects of actual theatrical production. Acting, directing, scene construction, lighting, makeup and publicity. Class will begin the third week of the quarter. Prerequisite: DRMA 271 (or THEA 271). [HB, SE]

PLAY PRODUCTION AND PERFORMANCE VI

DRMA 273 2 Credits
44 hours of lab
Practical experience with varied aspects of actual theatrical production. Acting, directing, scene construction, lighting, makeup and publicity. Class will begin the third week of the quarter. Prerequisite: DRMA 272 (or THEA 272). [HB, SE]

SELECTED TOPICS

DRMA 280 1 - 3 Credits
33 hours of lecture
Varying topics in theatre, as listed in the quarterly class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS

DRMA 290 1 - 5 Credits
Opportunity to plan, organize and complete special projects approved by the department in the areas of stage direction, scene lighting, costume design, make-up design, production or theatre history. Prerequisite: Consent of Instructional Unit. [GE]

Early Childhood Education

CHILD DEVELOPMENT: BIRTH TO SIX

ECE 100 3 Credits

33 hours of lecture

Online course in child growth and development from birth to age six years, including physical, emotional, cultural, cognitive, and creative age-related changes. Application to early childhood programs in centers and homes. [GE]

SCIENCE AND MATHEMATICS FOR YOUNG CHILDREN

ECE 102 3 Credits

33 hours of lecture

Explores the theories, issues and applications of science and math concepts in activities and environments for preschool aged children. Investigates the strategies of teaching through the discovery and use of science and math curriculums in their surroundings. [GE]

CHILD NUTRITION, HEALTH AND SAFETY

ECE 103 3 Credits

33 hours of lecture

Nutrition, health and safety information for parents, teachers, and others interested in young children. Promoting good eating habits, wholesome foods and menu planning for preschool and day care groups. Creating safe and healthy environments at home and at school. Childhood diseases. [GE]

INDIVIDUALIZED INSTRUCTION I

ECE 105 2 Credits

22 hours of lecture

Theories and practices for inclusive early childhood education programs. Explores personal perceptions of disabilities and commonly held biases and the impact of environmental influences on ability. Prerequisite: EDUC& 203 (or ECE 104). [GE]

INDIVIDUALIZED INSTRUCTION II

ECE 106 2 Credits

11 hours of lecture

22 hours of lab

Theories and practices for inclusive early childhood programs. Documents a student's interests, strengths, and needs and develops an inclusion plan that supports those areas. Prerequisite: ECE 105. [GE]

EARLY CHILDHOOD EDUCATION WORKSHOPS

ECE 111 1 - 3 Credits

33 hours of lecture

In-service and special topic seminars for those currently working with groups of young children. Each 3-week session is offered for one credit. Students may take any or all of the sessions. A maximum of six credits of ECE 111 may be applied to major area requirements for a degree in Early Childhood Education. [GE]

CURRICULUM AND GUIDANCE FOR SCHOOL-AGERS

ECE 112 4 Credits

44 hours of lecture

An overview of curriculum and programming for school-agers. Topics include environmental planning and organization, developmentally appropriate practices, guidance practices and the dynamics involved i.e., societal and family culture, documentation, emergent inclusive, and culturally responsive curriculum, the Project Approach, group games, and summer programming. NO onsite lab required for this course; observations conducted at off-site community locations. [GE]

ENVIRONMENTS FOR CHILDREN

ECE 114 3 Credits

33 hours of lecture

Planning physical space appropriate to children's cognitive, physical, and socio-emotional development. Develop an

understanding of the role of environments on children's learning and behavior including schedules, materials, room arrangement, and center-based learning. Incorporating diversity through the environment. [GE]

LITERATURE AND STORYTELLING FOR CHILDREN

ECE 116

3 Credits

33 hours of lecture

An overall look at the role storytelling and literature play in the development of the young child. Focuses on how storytelling and literature impact literacy, aesthetic development, cultural development, as well as how they support the whole child. Includes resources in the community, delivery techniques and how to select appropriate books and literature. [GE]

INTRODUCTION TO EARLY CHILDHOOD EDUCATION

ECE 121

4 Credits

33 hours of lecture

22 hours of lab

History, philosophy, research, current trends and issues in early education. Developmentally appropriate practices in programs for children aged birth through 6 years. Two hours per week participation in the Early Childhood Education Laboratory School. One observation in an outside agency. [SE]

EARLY CHILDHOOD PROGRAM REG & BEST PRACTICES

ECE 123

2 Credits

22 hours of lecture

Overview of the minimum licensing requirements for ECE programs in the State of Washington as well as recommended best practices as set by the National Association for the Education of Young Children and other professional organizations. Includes application of the Americans With Disabilities Act to programs and practices. Covers recognition and reporting of child maltreatment. [GE]

GUIDING BEHAVIOR OF YOUNG CHILDREN

ECE 124

3 Credits

33 hours of lecture

Developing observational and interpretive skills in the guidance of young children. Specific approaches and guidance techniques. Focus on communication and negotiation skills. Curriculum planning from a developmental multicultural perspective. [GE]

ISSUES & TRENDS IN EARLY CHILDHOOD EDUCATION

ECE 131

3 Credits

33 hours of lecture

History, philosophy, research, current trends, and issues in early education. Developmentally appropriate practices in programs for children, birth through 6 years. One outside observation required in an early childhood program. Statewide, on-line only. Credit not allowed for both ECE 121 and 131. [GE]

OBSERVATION, DOCUMENTATION AND RECORDING

ECE 132

3 Credits

33 hours of lecture

Introduction to age appropriate observation techniques for individual and groups of children in the early learning years, including methods of observations, collecting data, assessment tools and authentic assessment and the issues and trends of data collection in Early Childhood Education. [GE]

REFLECTIVE PRACTICES IN EARLY LEARNING

ECE 133

3 Credits

33 hours of lecture

A comprehensive overview and theoretical exploration of perspectives regarding multiple contexts including race, culture, ethnicity, language, class, gender, sexual orientation, atypical and typical abilities. Focus on biases that may impact learners' work as reflective practitioners working with children and families. Focus on effective anti-bias strategies. Meets General Education transfer requirements. [GE]

ADMINISTRATION OF EARLY LEARNING PROGRAMS

ECE 134

3 Credits

33 hours of lecture

An overview of components necessary for child care personnel (family child care providers and center directors) to open, operate, and manage early learning programs that meet licensing, accreditation and other quality standards with a focus on program administration and operations. [GE]

PARTNERSHIPS WITH FAMILIES IN EARLY CARE & ED

ECE 135

3 Credits

33 hours of lecture

Developing effective partnerships with families in early care and education programs. Topics include family-centered theories and practices related to welcoming families and building relationships, communicating, working through conflicts, honoring diversity, family involvement and support, and parent education. [GE]

PROGRAMS FOR INFANTS AND TODDLERS

ECE 136

4 Credits

44 hours of lecture

Principles and theories of infant and toddler implications for curriculum. Focus on responsive learning environment approach that supports infant-toddler growth and total well-being. Includes care-giving practices, the schedule, the routines, the furnishings, and materials. [GE]

CHILD DEVELOPMENT: PRENATAL THROUGH AGE EIGHT

ECE 137

5 Credits

55 hours of lecture

Introduction to the physical, racial, ethnic, cultural, emotional, social, cognitive, and creative development of children from conception through eight years old. This course is designed for those who are majoring in Early Childhood Education or Education. [SE]

CHILD DEVELOPMENT: SCHOOL AGE THROUGH ADOLESCENCE

ECE 138

5 Credits

55 hours of lecture

Introduction to the physical, racial, ethnic, cultural, emotional, social, cognitive, creative development of children in middle childhood through adolescence years. This course is designed for those who are majoring in Early Childhood Education or Education. [SE]

COOPERATIVE WORK EXPERIENCE

ECE 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluations. Completion of, or concurrent in, HDEV 195, 198, or 200 required. Prerequisite: ECE 121, 209 and 210, and consent of Instructional Unit. [GE]

CHILD AND FAMILY

ECE 202

3 Credits

33 hours of lecture

An ecological perspective of the family and the socialization of children. Areas of focus include an examination of family structures, historical and economic perspectives, stressors, family dynamics and multiple perspectives of culture with ensuing impacts on families participating in early childhood programs. [GE]

EARLY LANGUAGE FACILITATION

ECE 208

2 Credits

22 hours of lecture

A comprehensive overview of early speech and language development. Theoretical exploration of language acquisition in the context of psychosocial, socio-cultural, biosocial, and cognitive development. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN I

ECE 209

3 Credits

33 hours of lecture

Explore curriculum planning processes with a special focus on an environmental approach using observations of children's play and knowledge of child development. Areas of study include the self, social development, dramatic play, literacy and art. Concurrent enrollment in ECE 210 required. Prerequisite: Completion of, or concurrent enrollment in ECE 124. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN I LAB

ECE 210

3 Credits

66 hours of lab

Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 209. Concurrent enrollment in ECE 209 required. Prerequisite: Completion of, or concurrent enrollment in, ECE 124. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN II

ECE 211

3 Credits

33 hours of lecture

Further develop curriculum planning processes with a special emphasis on scheduling and project approach planning using observations of children's play and knowledge of child development. Areas of study include science, math, group experiences, music/movement, and outdoors. Conduct case studies and provide peer support and feedback. Concurrent enrollment in ECE 212 required. Prerequisite: ECE 209, or consent of Instructional Unit. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN II LAB

ECE 212

3 Credits

66 hours of lab

Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 211. Concurrent enrollment in ECE 211 required. Prerequisite: ECE 210, or consent of Instructional Unit. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN III

ECE 213

3 Credits

33 hours of lecture

Further develop curriculum planning processes with special emphasis on emergent and integrated thematic approaches while applying knowledge of multiple intelligences. Areas of study include parent/teacher relationships, teacher development stages, staff communication and relationships. In-depth study of individual and cultural diversity as related to knowledge of child development. Concurrent enrollment in ECE 214 required. Prerequisite: ECE 211, or consent of Instructional Unit. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN III LAB

ECE 214

3 Credits

66 hours of lab

Lab experiences in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 213. Concurrent enrollment in ECE 213 required. Prerequisite: ECE 212, or consent of Instructional Unit. [GE]

EARLY CHILDHOOD SEMINAR

ECE 215

2 Credits

22 hours of lecture

Seminar on professionalism, ethics and issues in teaching and administration. Concurrent enrollment in ECE 199, 15 hours per week required as field placement for students in teaching degree program. Prerequisite: ECE 214, or consent of Instructional Unit. [GE]

SELECTED TOPICS

ECE 280

1 - 3 Credits

33 hours of lecture

Selected topics in Early Childhood Education as listed in the quarterly class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS

ECE 290

1 - 3 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Economics

INTRODUCTION TO ECONOMICS

ECON 101

3 Credits

33 hours of lecture

Survey of economics. Key topics include current economic issues and processes related to ways individuals, groups, and whole societies produce, distribute, and utilize economic resources. This course is good preparation for the advanced Microeconomics and Macroeconomics courses. Credit not allowed for both Economics 101 and Economics 110. [SE, SS]

ECONOMIC GEOGRAPHY

ECON 107

5 Credits

55 hours of lecture

Broad patterns, courses, and consequences of interrelationships between economic and geographic forces, processes, and resources. Location of economic activity, population dynamics, strategic resources, global economic flashpoints, patterns/consequences of regional integration. Same as GEOG 107. Credit not allowed for both ECON 107 and GEOG 107. [SE, SS]

INTRODUCTION TO THE GLOBAL ECONOMY

ECON 110

5 Credits

55 hours of lecture

Introduction to economic concepts and their use in the global economy. Topics include basic microeconomics and macroeconomics, international trade, balance of payments, exchange rates, international institutions, energy, war, and terrorism. Intended for economics and non-economics majors. This course is an alternative for Economics 101, with additional topics including in-depth study of international economic issues. Credit not allowed for both Economics 101 and Economics 110. [SE, SS]

THE ECONOMIES OF THE PACIFIC RIM

ECON 111

5 Credits

55 hours of lecture

The events and people shaping the last 150 years of Asia-Pacific economics and history. Relate these to the shape of the Pacific Basin relationships. Economic resources and interdependence in the Pacific Basin, the United States in the Pacific, the collisions between the East and West, the changing attitudes toward power, authority, democracy, tradition and progress. [SE, SS]

THE ECONOMIES OF THE AMERICAS

ECON 112

5 Credits

55 hours of lecture

The economies and cultural characteristics of the nations of the United States. Gain an integrated perspective and greater appreciation of the nations which compose Central and South America, a diverse region which encompasses great wealth and extreme poverty, small and large nations, democratic and totalitarian traditions, and complex multi-cultural heritage. [SE, SS]

INTERNATIONAL ECONOMICS

ECON 120

3 Credits

33 hours of lecture

International economics, for both economics majors and non-economic majors, emphasizes the fundamental economic concepts for understanding today's global economy. Topics include the basic concepts and tools of international economic analysis, including trade, trade policy, trading blocs, protectionism, exchange rate determination, managing currencies, multi-national corporations, labor, developing countries, and the environment. Prerequisite: A grade of "C" or better in ECON 101. [SE, SS]

MICRO ECONOMICS

ECON& 201

5 Credits

55 hours of lecture

Essential market processes, structures, issues, and variables governing how individuals, firms and governmental entities allocate resources, produce and distribute goods and services, determine prices, evaluate trade-offs and effectively compete and grow. Prerequisite: ECON 101 or MATH 095 or consent of Instructional Unit. [SE, SS]

MACRO ECONOMICS

ECON& 202

5 Credits

55 hours of lecture

Broad economic principles, issues, structures, processes, and variables governing the dynamics of the United States and global economies. Problems of economic organization, market processes, role of government in the economy and society, money and banking processes and issues, measurement and determination of economic aggregates, fiscal and monetary policies, economic growth and development and international trade. Prerequisite: ECON 101 or MATH 095 or consent of Instructional Unit. [SE, SS]

SELECTED TOPICS

ECON 280

1 - 5 Credits

55 hours of lecture

Focus on selected topics in Economics. Because the course varies in theme and content, it is repeatable for credit. [GE, SE]

SPECIAL PROJECTS

ECON 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Education

COOPERATIVE WORK EXPERIENCE

EDUC 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in education. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

INTRODUCTION TO EDUCATION

EDUC& 201

3 Credits

33 hours of lecture

Overview of education as a discipline, a philosophy, and a profession. Recommended for future teachers and para-educators. Concurrent enrollment in EDUC 210 required. [SE]

EXCEPTIONAL CHILD

EDUC& 203

3 Credits

33 hours of lecture

Introduction to various topics regarding children with special needs and exploration of concepts of inclusion and individualized instruction. [GE]

INTRODUCTORY FIELD EXPERIENCE

EDUC 210

3 Credits

11 hours of lecture

44 hours of lab

Orientation to teaching and life in the American system of schooling. Supervised volunteer field experience with a weekly, one-hour seminar. Concurrent enrollment in EDUC& 201 required. [GE]

Electronics Technology

PROFESSIONAL DEVELOPMENT FOR TECHNICIANS

ELEC 100

3 Credits

22 hours of lecture

22 hours of lab

Development of skills required for successful job placement and career development in technical occupations. Topics will include resume writing, effective job search techniques, interviewing skills, professional attitudes, business ethics, leadership development, and creating and posting an on-line resume. [GE]

DC FUNDAMENTALS

ELEC 101

4 Credits

44 hours of lecture

66 hours of lab

Fundamentals of DC circuits with emphasis on algebraic analysis of resistive networks. Includes hands on experience in DC circuit construction, measurement and troubleshooting. Prerequisite: A grade of "C" or better in ENGL 098 or equivalent placement score, MATH 090 or higher. [GE]

AC FUNDAMENTALS

ELEC 102

4 Credits

44 hours of lecture

66 hours of lab

Fundamentals of AC resistive, capacitive and inductive networks with emphasis placed on methods of analysis and circuit characteristics. Includes hands on experience in AC circuit construction, measurement and trouble shooting. Prerequisite: A grade of "C" or better in ELEC 101 and ENGL 098 or equivalent placement score and MATH 090 or higher. [GE]

INTRODUCTION TO MICROCOMPUTERS

ELEC 111

3 Credits

11 hours of lecture

44 hours of lab

Introduction to personal computer hardware and system software. Operating systems, PC subsystems including video displays and adapters, disk drives, I/O, and memory expansion. Basic troubleshooting techniques. [GE]

SEMICONDUCTORS I

ELEC 121

4 Credits

44 hours of lecture

66 hours of lab

Fundamentals and applications of diodes, transistors and special purpose semiconductor devices. Includes hands on experience in semiconductor circuit construction, measurement and trouble shooting. Prerequisite: A grade of "C" or better in ELEC 102 or consent of Instructional Unit. [GE]

COOPERATIVE WORK EXPERIENCE

ELEC 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Consent of Instructional Unit required. [GE]

DIGITAL PRINCIPLES II

ELEC 210

6 Credits

44 hours of lecture

44 hours of lab

Examines the theory and characteristics of more advanced digital integrated circuits including flip-flops, counters, shift registers, multiplexers, memories, and analog to digital and digital to analog converters. Emphasis is placed on digital devices, circuits and systems in practical applications, and on troubleshooting digital circuits and systems.

Prerequisite: A grade of “C” or better in ELEC 209 or concurrent enrollment in ELEC 209 or consent of Instructional Unit. [GE]

PNEUMATICS/HYDRAULICS/VACUUM

ELEC 215 3 Credits

11 hours of lecture

Theory and principles of basic fluid power, as applied to hydraulic, pneumatic, and vacuum systems. Opportunity to learn fluid power’s control and uses, the nomenclature of design, component selection, and the effect on the operation and function of the system. Lecture and demonstrations will be presented. Concurrent enrollment in ELEC 215L required. [GE]

INTRO TO STATISTICAL PROCESS CONTROL

ELEC 240 5 Credits

55 hours of lecture

Introduction to the foundations of statistics, basics of statistical control, acceptance sampling, types of control charts, manufacturing applications and strategies. Prerequisite: Grade of “C” or better in MATH 099 or eligibility for 100 level Math classes. [GE]

SELECTED TOPICS

ELEC 280 1 - 6 Credits

66 hours of lecture

Course focuses on selected topics in Electronics. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE]

SPECIAL PROJECTS

ELEC 290 1 - 3 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Emergency Medical Technician (EMT)

EMERGENCY MEDICAL TECHNICIAN - BASIC

EMT 103 10 Credits

66 hours of lecture

66 hours of lab

120 hours of training in emergency procedures and 10 hours of in-hospital observation. Each lesson provides for supervised practice of skills taught in that lesson. As required by the DOT, this course is under the supervision of a physician and lay-coordinator. Meets the requirements of State EMT certification. Must be 18 years of age and have proof of current Healthcare Provider Level CPR (CPR 032) or acquire within the first two weeks of the course. Immunizations must be up-to-date. Students must purchase text available at Clark College Bookstore. Bring text to class. [GE]

Engineering

HP GRAPHING CALCULATOR

ENGR 080 1 Credits

11 hours of lecture

Basic and advanced calculator function. Graphing matrices, statistics, conversions, programming and directories are included. Additional topics are covered as required. Developed to help students become more proficient using their HP calculators. Prerequisite: “C” or better in MATH 030. [SE]

ENGINEERING AND COMPUTER SCIENCE ORIENTATION

ENGR 101 1 Credits

22 hours of lab

Orientation for students interested in Engineering and Computer Science. Topics include effective planning, com-

munication, teamwork, and exposure to Engineering and Computer Science educational/career opportunities and challenges. Credit not allowed for both ENGR 101 and CSE 101. [SE]

INTRODUCTION TO DESIGN

ENGR& 104 5 Credits
44 hours of lecture 33 hours of lab

Introduction to the engineering method of problem solving through guided Engineering design projects. Focus on developing group skills, understanding the effects of different learning styles, producing strategies for innovation, and fostering creativity in problem solving. [SE]

INTRO TO AEROSPACE ENGINEERING

ENGR 107 2 Credits
11 hours of lecture 22 hours of lab

Introduction to general aerospace industry topics: lift, drag, propulsion, performance, stability and control, design, and testing. Includes a team approach to design activities such as paper aircraft design and high powered rocket construction. Prerequisite: ENGR& 104 (or ENGR 110) or consent of Instructor. [SE]

INTRODUCTION TO ENGINEERING

ENGR 109 5 Credits
55 hours of lecture

Introduction to the engineering profession: its branches, principles, and practices. Engineering problem-solving, methods of analysis and design, and an introduction to engineering fundamentals. Prerequisite: MATH 103 or equivalent, and completion of, or concurrent enrollment in MATH 111 or equivalent. [SE]

ENGINEERING SKETCHING AND VISUALIZATION

ENGR 113 2 Credits
11 hours of lecture 22 hours of lab

Engineering communication and graphics through freehand sketching. Visualization and development of orthographic theory, scales, and lettering. Prerequisite: A grade of "C" or better in MATH 095. [SE]

GEOMETRIC DIMENSIONING AND TOLERANCING

ENGR 115 2 Credits
11 hours of lecture 22 hours of lab

Basics of geometric dimensioning and tolerancing: what it is and why use it, GDT symbols and their use, maximum and least material conditions, datums, and geometric characteristics. AutoCAD will be used to dimension drawings using GDT. Prerequisite: A grade of "C" or better in ENGR 113 and either ENGR 140 or ENGR 150. [SE]

INTRO TO ELECTRICAL/COMPUTER SCI & ENGINEERI

ENGR 120 5 Credits
44 hours of lecture 33 hours of lab

Introduction to electrical engineering, computer science and engineering processes, principles, problem-solving techniques, and contemporary tools. Application of in-class learning to hands-on projects and exploration of current industry trends and implications. Prerequisite: A grade of "C" or better in MATH 103. [SE]

FIELD SURVEY I

ENGR 121 5 Credits
33 hours of lecture 44 hours of lab

Basic theory of surveying, measurement and calculation. Topics include: measurement and determination of boundaries, areas, and shapes; location through traversing techniques; error theory; compass adjustments; public land system; use of programmable calculators; and principles of measurements of distances, elevation and angles. Concurrent enrollment in ENGR 121 lab required. Prerequisite: A grade of "C" or better in MATH& 151 (or MATH 113). [SE]

BASIC SOLIDWORKS

ENGR 150 4 Credits
16 hours of lecture 55 hours of lab

Parametric solids modeling with SolidWorks, covering the breadth of the software at a basic level. Create part, assembly, and drawing files, including design tables and multiple configurations. Recommended for anyone with good computer skills. [SE]

COOPERATIVE WORK EXPERIENCE

ENGR 199 1 - 5 Credits
165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200. Prerequisite: Consent of Instructional Unit. [GE]

ELECTRICAL CIRCUITS

ENGR& 204 5 Credits
44 hours of lecture 33 hours of lab

Basic concepts of AC and DC electrical circuits. Analyze and design voltage and current relationships for series and parallel RLC circuit. Use of Kirchhoff's laws, Thevenin/Norton theorems, Operational Amplifier circuits, and Step/Natural/Steady-State circuit response. Use of test and measurement equipment in a laboratory setting. Prerequisite: MATH& 152 (or MATH 211). [SE]

STATICS

ENGR& 214 5 Credits
55 hours of lecture

Solution of two and three dimensional vector systems using vector algebra notation and free-body diagrams. Friction, centroids, moment of inertia, radius of gyration, and loads involved in structures, machines, and trusses. Prerequisite: MATH& 152 (or MATH 211). [SE]

AUTOCAD CUSTOMIZATION

ENGR 214 3 Credits
11 hours of lecture 44 hours of lab

Advanced AutoCAD development. Customization and programming AutoLISP. Prerequisite: ENGR 114 or consent of Instructional Unit. [SE]

DYNAMICS

ENGR& 215 5 Credits
55 hours of lecture

Kinematics and kinetics of particles, systems of particles and rigid bodies. Force/acceleration, work/energy and impulse/momentum problem solving techniques will be applied to two and three dimensional systems. Prerequisite: ENGR& 214 and MATH 152 or (ENGR 211 and MATH 211). [SE]

MATERIALS SCIENCE

ENGR 221 5 Credits
55 hours of lecture

Basic structure and properties of materials. Phase equilibrium and transformations. Mechanical properties, electronic structure, thermal, electrical, and magnetic properties. Prerequisite: CHEM& 142 (or CHEM 132). [SE]

THERMODYNAMICS

ENGR& 224 5 Credits
55 hours of lecture

Explores the fundamentals of thermodynamics. Investigates the thermodynamic properties of matter with emphasis on ideal and real gases and introduces the concepts of heat and work. Defines the first and second laws of thermodynamics and explores their impact with examples. Uses thermodynamic cycles to apply the concepts of learned and relates the principles to applications. Prerequisite: MATH 211 and PHYS 201. [SE]

MECHANICS OF MATERIALS

ENGR& 225

5 Credits

55 hours of lecture

Concepts of stress and strain for deformable objects. Axial, torsional and bending loading, combined loadings. Column loading and stability with other applied topics. Prerequisite: ENGR 211 or ENGR& 214, and MATH 211 or MATH& 152. [SE]

MANUFACTURING PROCESSES

ENGR 239

5 Credits

33 hours of lecture

44 hours of lab

Introduction to manufacturing processes, emphasizing methods and practices used when machining, welding, and fabricating metals and related materials. [SE]

APPLIED NUMERICAL METHODS FOR ENGINEERS

ENGR 240

4 Credits

33 hours of lecture

22 hours of lab

Numerical solutions to problems in engineering and science using modern scientific computing tools. Application of mathematical judgment in selecting computational algorithms and communicating results. Use of MATLAB programming for numerical computation. Completion or concurrent enrollment in MATH 215. Prerequisites: A grade of "C" or better in MATH& 153, ENGR 109, or ENGR 120, or consent of Instructional Unit.

DIGITAL LOGIC DESIGN

ENGR 250

5 Credits

44 hours of lecture

66 hours of lab

Digital logic design, testing and implementation, including Boolean Algebra, Karnaugh map and design of logic circuits to solve practical problems using sequential/combinational/synchronous/asynchronous circuits, application of standard SSI/MSI/LSI logic systems, design/test/implement development cycle and Hardware Description Language (HDL). Cannot receive credit for both ENGR 237 and ENGR 250. Prerequisite: A grade of "C" or better in ENGR 120 (or CSE 120). [SE]

ELECTRICAL CIRCUITS AND SIGNALS

ENGR 252

5 Credits

44 hours of lecture

66 hours of lab

Continuation of Electrical Circuits. Analysis and design of RLC circuits in sinusoidal steady state, complex-frequency domain of linear and lumped parameter circuits, active/passive filter circuits, poly phase and two-port circuits. Application of Fourier series, Fourier transforms and computer tools in circuit analysis. Prerequisite: ENGR& 204 (or ENGR 251). [SE]

SIGNALS AND SYSTEMS

ENGR 253

5 Credits

44 hours of lecture

66 hours of lab

Concepts and applications in signal processing and linear system theory. Utilization of Fourier Analysis in both continuous and discrete time signals and systems. Role of sampling and the process of reconstructing a continuous-time signal from its samples and basics of communication systems. Application of Laplace transform and Z-transform. Prerequisite: ENGR 252. [SE]

DIGITAL SYSTEMS AND MICROPROCESSORS

ENGR 270

5 Credits

44 hours of lecture

33 hours of lab

Continuation of the Digital Design sequence. Covering synchronous/asynchronous state machines, shift registers, arithmetic circuits and devices, microprocessor internal and system architecture, design and subsystem interfacing, assembly language, and programmable logic devices, design for test, documentation standards, and use of computer-based tools. Prerequisite: A grade of "C" or better in ENGR 250. [SE]

SELECTED TOPICS

ENGR 280

1 - 5 Credits

55 hours of lecture

The course focuses on selected topics in Engineering. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

ENGR 290

1 - 6 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

English

WRITING FUNDAMENTALS

ENGL 097

3 Credits

33 hours of lecture

Emphasis on writing complete, correct sentences and unified, coherent, well-developed paragraphs. Short essays and selected readings assigned. Students build skills through pre-writing, drafting, revising, and editing. In-class and out-of-class essays required. Prerequisite: Recommending score on the College writing skills placement test for ENGL 097.

WRITING FUNDAMENTALS

ENGL 098

5 Credits

55 hours of lecture

Emphasis on expository writing and increasing control of grammar and mechanics. Skills include summarizing and writing essays. Students develop skills through pre-writing, drafting, revising, and editing. In-class and out-of-class essays required. Prerequisite: A grade of "C" or better in ENGL 097, or recommending score on the College writing skills placement test for ENGL 098.

ENGLISH COMPOSITION I

ENGL& 101

5 Credits

55 hours of lecture

Exposition and argument, emphasizing critical thinking in response to electronic and print texts. Focus on exploring, developing, and communicating ideas in a voice appropriate to the audience. Students strengthen skills through pre-writing, drafting, revising, and editing. In-class and out-of-class essays required. Prerequisite: A grade of "C" or better in ENGL 098 taken at 5 credits or recommending score on the writing skills placement test for ENGL 101. [C, SE]

ENGLISH COMPOSITION II

ENGL& 102

5 Credits

55 hours of lecture

Continued studies in exposition and argument emphasizing the research paper. Focus on analysis and synthesis of electronic and print texts in the context of supporting the writer's ideas with appropriate documentation. Students refine skills through pre-writing, drafting, revising, and editing. Prerequisite: A grade of "C" or better in ENGL 101. [C, SE]

ADVANCED ENGLISH COMPOSITION

ENGL 103

3 Credits

33 hours of lecture

Emphasis on composing essays on complex ideas of cultural importance. Assignments based on reading and research in art, science, philosophy, and politics. Prerequisite: ENGL& 102 (or ENGL 102). [C, SE]

ENGLISH GRAMMAR

ENGL 105

5 Credits

55 hours of lecture

Description and analysis of the structure of English language, using traditional grammar and syntax. Designed to fulfill the grammar requirement for English majors seeking Washington State teacher certification in English. [SE]

WRITING ABOUT FILM

ENGL 108

3 Credits

33 hours of lecture

Focus on writing effective research essays analyzing international films. Emphasis on the composition process and the development of writing skills and evaluation sources, including prewriting, drafting, revising, editing, and documenting. Introduction to film terminology and techniques and the major approaches used in writing essays about films, including film history, national cinemas, genres, auteurism, and formalism, and ideological studies. Prerequisite: A grade of "C" or better in ENGL& 101. [C, SE]

WRITING ABOUT THE SCIENCES

ENGL 109

5 Credits

55 hours of lecture

Continued studies in writing expository essays, focusing on topics in the life sciences and physical sciences. Emphasis on critical reading of published scientific research and appropriate use of peer-reviewed journals to support the writer's ideas. Expanding academic writing skills of pre-writing, drafting, revising, editing, and documenting. Prerequisite: A grade of "C" or better in ENGL& 101 (or ENGL 101). [C, SE]

COMPOSITION FOR LITERATURE

ENGL 110

5 Credits

55 hours of lecture

Continued studies in writing essays of exposition and argument emphasizing the interpretation of literature, with focus on critical reading of literary texts using theories and appropriate use of documented sources to support the writer's ideas. Expanding academic writing skills of pre-writing, drafting, revising, editing, and documenting. Prerequisite: ENGL& 101 (ENGL 101). [C, SE]

CREATIVE WRITING

ENGL 121

3 Credits

33 hours of lecture

Students may restrict themselves to writing poetry, short stories, plays or may choose to work in several forms. Helps students determine what they will say and how they will say it. Prerequisite: A grade of "B" or better in ENGL 098, a grade of "C" or better in ENGL 099, or recommending score on the college writing skills placement test for ENGL& 101 (ENGL 101). [HB, SE]

CREATIVE WRITING

ENGL 122

3 Credits

33 hours of lecture

Students may write poetry, short stories, plays or may choose to work in several forms. Helps students determine what they will say and how they will say it. Prerequisite: A grade of "B" or better in ENGL 098, a grade of "C" or better in ENGL 099, or recommending score on the college writing skills placement test for ENGL& 101 (or ENGL 101). [HB, SE]

CREATIVE WRITING

ENGL 123

3 Credits

33 hours of lecture

Students may write poetry, short stories, plays or may choose to work in several forms. Helps students determine what they will say and how they will say it. Prerequisite: A grade of "B" or better in ENGL 098, a grade of "C" or better in ENGL 099, or a recommending score on the college writing skills placement test for ENGL& 101 (or ENGL 101). [HB,SE]

FICTION WRITING

ENGL 125 3 Credits
33 hours of lecture
Fundamentals of writing fiction with an emphasis on short fiction. Writing workshop format. Develops skills for critiquing student fiction and introduces publication strategies. Completion of ENGL 101 recommended, but not required. [HB, SE]

POETRY WRITING

ENGL 126 3 Credits
33 hours of lecture
Class discussion of student work, development of tools for self-criticism, and strategies for getting poetry published. [HB, SE]

INTRODUCTION TO LITERATURE

ENGL 130 3 Credits
33 hours of lecture
An introduction to poetry, fiction, and dramatic literature, and to the language and principles of literary analysis. [HA, SE]

INTRODUCTION TO POETRY

ENGL 131 3 Credits
33 hours of lecture
Study of poetry, poetic forms, and the language and principles of literary analysis. [HA, SE]

INTRODUCTION TO DRAMATIC LITERATURE

ENGL 132 3 Credits
33 hours of lecture
Study of drama as both literature and theater, from historical, philosophical and artistic perspectives. [HA, SE]

INTRODUCTION TO FICTION

ENGL 133 3 Credits
33 hours of lecture
Study of fiction in both short story and novel form, including classic and contemporary examples. Introduction to the language and principles of literary analysis. [HA, SE]

INTRODUCTION TO TECHNICAL WRITING

ENGL 135 5 Credits
55 hours of lecture
Introduction to principles for developing work-world documents, with emphasis on writing business letters, memorandums, resumes, instructions, summaries, proposals, and informal reports. For students of all scientific, technical, and professional fields. Prerequisite: A grade of "C" or better in ENGL 098 taken at 5 credits, or recommending score on COMPASS. [C, SE]

WOMEN IN LITERATURE

ENGL 140 3 Credits
33 hours of lecture
Study of fiction, nonfiction, poetry, and drama written by women reflecting the female experience. [HA, SE]

SCIENCE FICTION AND FANTASY

ENGL 143 3 Credits
33 hours of lecture
Study of speculative fiction from fantasy to hard science with attempts to define its particular qualities and place in modern literature. [HA, SE]

DETECTIVE FICTION

ENGL 145 3 Credits
33 hours of lecture

Introduction to detective fiction, its typical styles and techniques, its interactive nature, and its capacity for social critique. Topics include early detective authors and the evolution of the popular image of the detective in American and British cultures. [HA, SE]

INTRODUCTION TO CLASSICAL MYTHOLOGY

ENGL 150 3 Credits
33 hours of lecture

Study of significant world myths, including their sources and literary expressions. [HA, SE]

THE BIBLE AS LITERATURE

ENGL 152 3 Credits
33 hours of lecture

Study of the varied genres of Biblical literature from literary, historical, and cultural perspectives. [HA, SE]

INTRODUCTION TO THE NOVEL

ENGL 156 3 Credits
33 hours of lecture

Study of the novel from historical, artistic, and thematic perspectives. Introduction to the language and principles of literary analysis. [HA, SE]

COOPERATIVE WORK EXPERIENCE

ENGL 199 1 - 5 Credits
165 hours of clinical

For students interested in careers that emphasize writing, co-op work experience offers credit for supervised work in writing-related jobs. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

BUSINESS COMMUNICATIONS

ENGL 212 3 Credits
33 hours of lecture

Developing proficiency in written and oral communications appropriate for business by composing, organizing, and editing letters, reports, memos, emails, and presentations from a variety of business cases and managerial interviews. Emphasis on team work, collaboration, diversity, intercultural communication, and the delivery of oral presentations, using specialized software. Same as BUS 211. Prerequisite: ENGL& 101 (ENGL 101) or consent of Instructional Unit. [C, GE, SE]

TECHNICAL WRITING

ENGL& 235 5 Credits
55 hours of lecture

Study of advanced writing skills for typical work-world documents in a business/technical environment, with emphasis on document format, audience analysis, correspondence, formal and informal reports, research, and documentation. Prerequisite: A grade of "C" or better in ENGL& 101 or ENGL 135. [SE]

INTRODUCTION TO QUEER LITERATURE

ENGL 254 3 Credits
33 hours of lecture

An introductory survey of literature relevant to the gay, lesbian, bisexual, and trans communities and their historical predecessors from pre-modern times to the present. Prerequisite: College level reading and writing recommended. [HA, SE]

WORLD LITERATURE

ENGL 260 3 Credits
33 hours of lecture

Masterpieces of the Ancient World through the fourteenth century. Literature is read within its historical and cultural setting. Eligibility for ENGL& 101 (or ENGL 101) recommended. [HA, SE]

WORLD LITERATURE

ENGL 261 3 Credits
33 hours of lecture

Masterpieces from the fifteenth century through the eighteenth century. Literature is read within its historical and cultural settings. Eligibility for ENGL& 101 (or ENGL 101) recommended. [HA, SE]

WORLD LITERATURE

ENGL 262 3 Credits
33 hours of lecture

Masterpieces of world literature from the nineteenth century through the contemporary period. Literature is read within its historical and cultural settings. Eligibility for ENGL& 101 (or ENGL 101) recommended. [HA, SE]

BRITISH LITERATURE

ENGL 264 3 Credits
33 hours of lecture

Classics of British literature from the eighth to the seventeenth century. Literature is read within its historical and cultural settings. Eligibility for ENGL& 101 (or ENGL 101) recommended. [HA, SE]

BRITISH LITERATURE

ENGL 265 3 Credits
33 hours of lecture

Classics of British literature from the seventeenth to the nineteenth century. Literature is read within its historical and cultural setting. Eligibility for ENGL& 101 (or ENGL 101) recommended. [HA, SE]

BRITISH LITERATURE

ENGL 266 3 Credits
33 hours of lecture

Classics of British literature from the nineteenth century to the present. Literature is read within its historical and cultural settings. Eligibility for ENGL& 101 (or ENGL 101) recommended. [HA, SE]

AMERICAN MULTIETHNIC LIT

ENGL 267 3 Credits
33 hours of lecture

Survey of American multiethnic writing from Civil Rights era to the present. Emphasis on writings as a “window” to American ethnic experience, culture, and history within larger American historical contexts, encouraging students to develop understanding of political, social, and historic climate as it helps shape and is shaped by literature. [HA, SE]

AMERICAN LITERATURE

ENGL 268 3 Credits
33 hours of lecture

Survey of American writing from the colonial period to the Civil War. Literature is read within its historical and cultural setting. Eligibility for ENGL& 101 (or ENGL 101) recommended. [HA, SE]

AMERICAN LITERATURE

ENGL 269 3 Credits
33 hours of lecture

Survey of American writing from the Civil War through World War I. Literature is read within its historical and cultural setting. Eligibility for ENGL& 101 (ENGL 101) recommended. [HA, SE]

AMERICAN LITERATURE

ENGL 270 3 Credits
33 hours of lecture
Survey of American writing from World War I to the present. Literature is read within its historical and cultural setting. Eligibility for ENGL& 101 (ENGL 101) recommended. [HA, SE]

INTRODUCTION TO SHAKESPEARE

ENGL 272 3 Credits
33 hours of lecture
Readings of selected tragedy, comedy and historical plays of Shakespeare. Eligibility for ENGL& 101 (ENGL 101) recommended. [HA, SE]

FICTION WRITING

ENGL 275 3 Credits
33 hours of lecture
Fundamentals of writing fiction with an emphasis on short fiction. Writing workshop format. Develops skills for critiquing student fiction and introduces publication strategies. Completion of ENGL 101 recommended, but not required. Prerequisite: ENGL 125. [HB, SE]

POETRY WRITING

ENGL 276 3 Credits
33 hours of lecture
Continuation of ENGL 126. Further development of the principles of writing and marketing poetry. Prerequisite: ENGL 126. [HB, SE]

SELECTED TOPICS

ENGL 280 1 - 3 Credits
33 hours of lecture
Course focuses on selected topics in English. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

ENGL 290 1 - 5 Credits
Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

English as a Non-Native Language

INTERMEDIATE WRITING AND APPLIED GRAMMAR

ENL 081 4 Credits
44 hours of lecture
Skill building through exercises in grammar, writing responses to assigned readings, and planning, organizing, drafting, and revising sentences and paragraphs. Particular emphasis on correction and practice of sentence-level grammar. Intended for non-native English writers. Concurrent enrollment in Reading 081 and ENL 082 are strongly recommended for any student; concurrent enrollment required for international program students to maintain credit level unless alternatives are approved by International Programs office. Prerequisite: TOEFL iBT 32-39, TOEFL Paper 400-429, IELTS Level 4, Compass ESL 65-79, Compass Writing 13-33/Reading 31-52, or SLEP 42; or permission of department.

INTERMEDIATE ORAL COMMUNICATION

ENL 082 4 Credits
44 hours of lecture
Focus on appropriate oral communication skills both inside and outside the classroom. Pronunciation and grammar accuracy as well as fluency will be developed. Intended for non-native English speakers. Concurrent enrollment required in READ 081 and ENL 081 for international program students or approval by International Programs

office. Prerequisite: TOEFL iBT 32-39, TOEFL Paper 400-429, IELTS Level 4, Compass ESL 65-79, Compass Writing 13-33/Reading 31-52 or SLEP 42; or permission of department.

ADVANCED WRITING AND APPLIED GRAMMAR

ENL 091

4 Credits

44 hours of lecture

Skills developed through exercises in grammar, writing responses to assigned readings, and planning, organizing, drafting, and revising paragraphs and basic essays. Particular emphasis on correction and practice of sentence-level grammar. Intended for non-native English writers. Concurrent enrollment in READ 083 and ENL 092 required for international students or approval by International Programs office. Prerequisite: A grade of "C" or better in ENL 081 or DVED 094; or TOEFL iBT 40-48, or TOEFL Paper 430-459, or IELTS Level 4.5, or STEP-Eiken Gr. 2, or Compass ESL 80-91, or Compass Writing 34-48; or permission of department.

ADVANCED ORAL COMMUNICATION

ENL 092

3 Credits

33 hours of lecture

Focus on appropriate oral communication skills for college-level classes. Pronunciation and grammar accuracy as well as fluency will be developed. Intended for non-native English speakers. Concurrent enrollment required for international program students or approval by International Programs office. Prerequisite: A grade of "C" or better in ENL 081 or DVED 094; or TOEFL iBT 40-48, or TOEFL Paper 430-459, or IELTS Level 4.5, STEP-Eiken Gr. 2, Compass ESL 80-91, or Compass 34-48; or permission of department.

UPPER ADVANCED GRAMMAR

ENL 100

3 Credits

33 hours of lecture

Grammar review and application to writing expository essays and informative summaries. Intended for non-native English writers. Topics include writing and editing complex sentences using appropriate language and academic style. Students must also enroll in ENGL 098; concurrent enrollment in ENGL 098 and ENL 100 required for international program students or approval by International Programs office. Prerequisite: A grade of "C" or better in ENL 091 or ENGL 097; one of the following entry scores: TOEFL iBT 49-60, TOEFL Paper 460-499, IELTS Level 5, Compass ESL 92-100, or Compass Writing 49-77; or permission of department. [GE]

COLLEGE GRAMMAR SUPPORT

ENL 101

3 Credits

33 hours of lecture

Grammar review and application to writing persuasive essays, informative summaries, and critiques of college-level academic articles. Intended for non-native English writers. Topics include writing and editing complex sentences using appropriate language and academic style. Students must be enrolled in ENGL& 101; concurrent enrollment in ENGL& 101 and ENL 101 required for international program students in Level D or approval by International Programs office. Prerequisite: A grade of "C" or better in ENGL 098; or TOEFL iBT 61-67, or TOEFL Paper 500-519, or IELTS Level 5.5, or SLEP 53+; or Compass Writing 78+ and Compass Reading below 74. [GE]

English as a Second Language

ESL 002 EDUCATIONAL INTERVIEWING LEVELS 1-3

ESL 002

1 Credits

11 hours of lecture

For new ESL students only; assessing new students in basic skills and learning styles; identifying barriers to their student success; helping students understand Clark College and Basic Education. Designed for lower level limited English proficient students.

ESL EDUCATIONAL INTERVIEWING LEVELS 4-6

ESL 003

1 - 2 Credits

22 hours of lecture

For new ESL students only; assessing new students in basic skills and learning styles; identifying barriers to their student success; helping students understand Clark College and Basic Education.

ESL I-BEST EDUCATIONAL INTERVIEWING

ESL 004

1 - 1 Credits

11 hours of lecture

For new ESL I-BEST students only; assessing new students in basic skills and learning styles; identifying barriers to their student success in transitioning to IBEST programs; helping students understand Clark College and the I-BEST program.

ESL SPECIAL TOPICS

ESL 005

1 - 10 Credits

88 hours of lecture

44 hours of lab

Variable topics in ESL and content to reflect the selected topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule.

ESL PROJECT BASED LEARNING

ESL 006

6 Credits

66 hours of lecture

Developing English Language Basic Skills in listening, speaking, reading, and writing, based on the Washington State Learning Standards, in a multi-level, multi-subject classroom. Exploring real-world problems and challenges. Focus on all four skills: reading, writing, listening and speaking; learning and practicing English through direct English instruction and through working on projects that are based on students' needs as assessed by instructor and students together; helping students to communicate effectively in family, community, and workplace situations.

ESL LISTENING AND SPEAKING, LEVEL I

ESL 011

6 Credits

66 hours of lecture

ESL level 1 students will learn to comprehend the gist of short, face-to-face oral communications spoken at slower rates on familiar topics concerning family, community and work with a low level of ease through frequent use of repetition or rephrasing. Students completing this course will be able to speak well-rehearsed words and phrases in familiar, highly structured settings, with limited comprehensibility. Prerequisite: CASAS placement test score of 180 or below.

ESL READING AND WRITING, LEVEL I

ESL 012

6 Credits

66 hours of lecture

ESL level 1 students will learn to slowly and with some effort comprehend words in short, simple texts to accomplish simple, well-defined, structured reading activities. Students completing this course will be able to write individual words, simple phrases and very simple sentences slowly, but with some effort and errors, to accomplish highly structured writing activities in familiar, comfortable settings. Prerequisite: CASAS placement test score of 180 or below.

ESL KEYBOARDING/WORD PROCESSING

ESL 016

1 - 2 Credits

44 hours of lab

Introduction to computer skills and applications in the context of reading comprehension, writing strategies and writing techniques within the Washington State Adult Learning Standards.

ESL BEGINNING PRONUNCIATION LEVELS 1-2

ESL 017

2 Credits

22 hours of lecture

Strengthen pronunciation skills for ESL students in accordance with Washington ESL Adult Learning Standard. To speak so others can understand. ESL students should: Determine the purpose for communication. Organize and relay information to effectively serve the purpose, context, and listener. Pay attention to conventions of oral English communication, including grammar, word choice, register, pace, and gesture in order to minimize barriers to listener's comprehension. Use multiple strategies to monitor the effectiveness of the communication. Instruction is targeted according to ESL Levels 1-2.

ESL PRONUNCIATION LEVELS 5-6

ESL 019

2 Credits

22 hours of lecture

Strengthen pronunciation skills for ESL students in accordance with Washington ESL Adult Learning Standard: To speak so others can understand. ESL students should: Determine the purpose for communicating. Organize and relay information to effectively serve the purpose, context, and listener. Pay attention to conventions of oral English communication, including grammar, word choice, register, pace, and gesture in order to minimize barriers to listener's comprehension. Use multiple strategies to monitor the effectiveness of the communication. Instruction is targeted according to ESL Levels 5-6. Concurrent enrollment in ESL Levels 5-6.

READING, SPEAKING AND ADULT NUMERACY

ESL 020

2 Credits

22 hours of lecture

Development of appropriate reading and speaking strategies for participating in discussions regarding adult numeracy presented within the Washington State Adult Learning Standards: topics include arithmetic, word problems, simple geometry, and algebra. Concurrent enrollment in ESL levels 2 or above. Prerequisite: ESL 022.

ESL LISTENING AND SPEAKING, LEVEL II

ESL 021

6 Credits

66 hours of lecture

ESL level 2 students will learn to comprehend the gist of simple, face-to-face oral communications completing highly structured tasks with pre-taught vocabulary, slow speech, and visual aids on familiar topics concerning family, community and work with some level of ease through frequent use of repetition or rephrasing. Students completing this course will be able to speak well-rehearsed phrases and simple sentences in familiar, highly structured settings, with occasional hesitation and inaccuracy. Prerequisite: ESL 011 and 012 or CASAS placement score of 181 to 190.

ESL READING AND WRITING, LEVEL II

ESL 022

6 Credits

66 hours of lecture

ESL level 2 students will learn to slowly comprehend words in small blocks of simple texts with some repetition and errors to independently accomplish simple, well-defined, structured reading activities. Students completing this course will be able to write simple sentences to independently accomplish highly structured writing activities in a few familiar, comfortable settings. Prerequisite: ESL 011 and 012 or CASAS placement score of 181 to 190.

READING, SPEAKING AND THE AMERICAN CITIZENSHIP

ESL 030

2 Credits

11 hours of lecture

22 hours of lab

Development of appropriate reading and speaking strategies to actively participate in various aspects of Civics and the US citizenship process; topics include presenting information and effectively responding to questions using knowledge and application of the Washington State Adult Learning Standards.

ESL LISTENING AND SPEAKING, LEVEL III

ESL 031

6 Credits

66 hours of lecture

ESL level 3 students will learn to listen for structured, well-defined purposes to maintain personal conversations,

acquire information or complete basic transactions in-person or in short telephone conversations with simplified language through frequent use of clarification strategies, using short, sometimes inaccurate utterances and a high level of visual or verbal support. Students completing this course will be able to speak with relative ease with some inaccuracies or non-standard speech in familiar one-on-one settings. Prerequisite: ESL 021 and 022 or CASAS placement test score of 191 to 202.

ESL READING AND WRITING, LEVEL III

ESL 032

6 Credits

66 hours of lecture

ESL level 3 students will learn to comprehend small blocks of simple texts slowly but easily with few errors to independently accomplish simple, well-defined, structured reading activities. Students completing this course will be able to write several simple sentences on familiar topics, with some effort but with few errors, to independently accomplish simple, well-defined, structured writing activities in a few familiar, comfortable settings. Prerequisite: ESL 021 and 022 or CASAS placement test score of 191 to 202.

ESL LISTENING AND SPEAKING, LEVEL IV

ESL 041

6 Credits

66 hours of lecture

ESL level 4 students will learn to comprehend and respond to most basic background information, everyday transaction and simple routine tasks, but have difficulty understanding full details on less familiar topics. Students completing this course will be able to speak fluently and relatively accurately in familiar contexts with a moderately high level of support. Their speaking will usually be understood by a skilled, supportive listener. Prerequisite: ESL 031 and 032 or CASAS placement test score of 203 to 213.

ESL READING AND WRITING, LEVEL IV

ESL 042

6 Credits

66 hours of lecture

ESL level 4 students will learn to quickly and accurately read and comprehend words and word groups in multiple pages of simple text in familiar contexts to independently accomplish simple well-defined, structured reading and writing activities in a few familiar settings. Students completing this course will be able to write short, structured paragraphs on familiar topics with some effort but with few errors. Prerequisite: ESL 031 and 032 or CASAS placement test score of 203 to 213.

ESL LISTENING AND SPEAKING, LEVEL V

ESL 051

6 Credits

66 hours of lecture

ESL level 5 students will learn to comprehend relatively unstructured, moderate-length conversations and presentations in somewhat complex, unfamiliar situations with non-adjusted language understanding some main ideas, and details. Students completing this course will be able to speak fluently and accurately in some unfamiliar contexts with some support. Their speaking will generally be understood by a skilled, supportive listener. Prerequisite: ESL 041 and 042 or CASAS placement test score of 214 to 220.

ESL READING AND WRITING, LEVEL V

ESL 052

6 Credits

66 hours of lecture

ESL level 5 students will learn to read and comprehend a variety of texts at an appropriate pace and with good comprehension to independently accomplish structured reading activities in a variety of familiar settings. Students completing this course will be able to write simple narrative, informative, or expressive texts of a few short paragraphs and steps with some effort, but with few errors to independently accomplish well-defined, structured writing activities for varied audiences in familiar settings. Prerequisite: ESL 041 and 042 or CASAS placement test score of 214 to 220.

ESL LEVEL 6A LISTENING AND SPEAKING

ESL 061

6 Credits

66 hours of lecture

ESL level 6A students will learn to function relatively independently in many social and work situations com-

prehending relatively unstructured conversations requiring integration of some data sources with limited need for guidance. Students completing this course will be able to speak fluently and accurately in most contexts with minimal support. Their speaking will sometimes be understood by an unskilled, unsupportive listener. Prerequisite: ESL 051 and 052 or CASAS placement test score of 221 to 227.

ESL LEVEL 6A READING AND WRITING

ESL 062

6 Credits

66 hours of lecture

ESL level 6A students will learn to read and comprehend multipart texts at an appropriate pace with enough comprehension to independently accomplish structured, fairly complex reading activities in a variety of familiar and a few novel settings. Students completing this course will be able to write a variety of texts including some complex sentence structures and multiple paragraphs with few errors for a variety of purposes independently accomplishing structured writing in familiar and a few novel settings. Prerequisite: ESL 051 and 052 or CASAS score of 221 to 227.

ESL LEVEL 6B LISTENING AND SPEAKING

ESL 063

6 Credits

66 hours of lecture

ESL level 6B students will learn to function independently in most social and work situations and comprehend relatively complex and unstructured oral input at normal speed integrating and summarizing several data sources with limited need for guidance and few errors. Students completing this course will be able to speak fluently and accurately with most familiar and unfamiliar audiences with minimal support. Student speech can generally be understood by an unsupportive, unskilled listener despite student lack of full comfort and ease. Prerequisite: ESL 061 and 062 or CASAS placement test score of 228 to 235.

ESL LEVEL 6B READING AND WRITING

ESL 064

6 Credits

66 hours of lecture

ESL level 6B students will learn to read and comprehend dense or multipart texts at an appropriate pace and with good comprehension to independently accomplish structured, complex reading activities in a variety of familiar and some novel settings. Students completing this course will be able to write a variety of texts including more complex sentence structures and multiple paragraphs easily with few errors for a wide variety of purposes independently accomplishing structured, fairly complex writing in a variety of familiar and some novel settings. Prerequisite: ESL 061 and 062 or CASAS placement test score 228 to 235.

LANGUAGE STANDARDS FOR COLLEGE TRANSITIONS

ESL 065

6 Credits

66 hours of lecture

Development of academic skills and appropriate language strategies to successfully transition into degree and certification programs, using knowledge and application of the Washington State Adult Learning Standards; focus on academics and cultural values/issues (ie., active listening and participation, assertiveness, etc.) integral to a successful academic experience.

I-BEST SUPPORT

ESL 071

1 - 6 Credits

66 hours of lecture

Provides Basic Skills students extra instruction and support for success in their I-BEST designated classes. Reviews important concepts and vocabulary introduced during I-BEST classes. Provide opportunities to develop culturally unfamiliar customer service and interaction skills needed to be successful in I-BEST occupations. Prerequisite: Admission into an I-BEST program.

MEDICAL LANGUAGE FOR ESL

ESL 072

3 Credits

33 hours of lecture

Introduction to basic medical terminology for non-native speakers of English to support transition into HEOC 125, a basic required course for Clark College Health Occupation Programs. Concurrent enrollment in ESL 073 and 074. Prerequisite: CASAS score of 214 or more or instructor permission.

INTRO TO HEALTH OCCUPATIONS FOR ESL

ESL 073

2 Credits

22 hours of lecture

Introduction to health careers for non-native speakers of English to support a transition into Clark College Health Occupation Programs. Concurrent enrollment in ESL 072 and 074. Prerequisite: CASAS score of 214 or more or instructor permission.

MEDICAL LANGUAGE SUPPORT FOR ESL

ESL 074

7 Credits

77 hours of lecture

Introduction to health occupations and some basic medical terminology for non-native speakers of English to support transition into Clark College Health Occupation Programs. Concurrent enrollment in ESL 072 and 073. Prerequisite: CASAS score of 214 or more or instructor permission.

ESL SELECTED TOPICS

ESL 080

1 - 10 Credits

110 hours of lecture

Course will focus on selected ESL topics. Course theme and content will change to reflect the new topic. Because of the variations, this course is repeatable for credit for different topics.

INTERMEDIATE WRITING AND APPLIED GRAMMAR

ESL 081

4 Credits

44 hours of lecture

Skill building through exercises in grammar, writing responses to assigned readings, and planning, organizing, drafting, and revising sentences and paragraphs. Particular emphasis on correction and practice of sentence-level grammar. Intended for non-native English writers. Concurrent enrollment in ESL 082 is strongly recommended for any student. Prerequisite: Successful completion of ESL Level 4; CASAS scores of 214-220; or permission of ESL Department.

INTERMEDIATE ORAL COMMUNICATION

ESL 082

4 Credits

44 hours of lecture

Focus on appropriate oral communication skills both inside and outside the classroom. Pronunciation and grammar accuracy as well as fluency will be developed. Intended for non-native English speakers. Concurrent enrollment in ESL 081 is strongly recommended. Prerequisite: Successful completion of ESL Level 4; CASAS scores of 214-220; or permission of ESL Department.

ADVANCED WRITING AND APPLIED GRAMMAR

ESL 091

4 Credits

44 hours of lecture

Skills developed through exercises in grammar, writing responses to assigned readings, and planning, organizing, drafting, and revising paragraphs and basic essays. Particular emphasis on correction and practice of sentence-level grammar. Intended for non-native English writers. Concurrent enrollment in ESL 092 strongly recommended. Prerequisite: A grade of "C" or better in ESL 081, successful completion of ESL Level 5, CASAS scores of 221-235, or permission of ESL Department.

ADVANCED ORAL COMMUNICATION

ESL 092

3 Credits

33 hours of lecture

Focus on appropriate oral communication skills for college-level classes. Pronunciation and grammar accuracy as well as fluency will be developed. Intended for non-native English speakers. Concurrent enrollment in ESL 091 strongly recommended.

Environmental Science

INTEGRATED ENVIRONMENTAL SCIENCE

ENVS 109

5 Credits

33 hours of lecture

44 hours of lab

Introduction to scientific inquiry using the foundations of physical, earth and life sciences. Focus on developing the skills to answer basic questions about scientific phenomena through scientific investigations and the ability to assist and guide others through this process. Designed for non-science majors and addressing the curriculum needs of early childhood educators. Prerequisite: A grade of "C" or better in MATH 030. [SE]

INTRO TO ENVIRONMENTAL SYSTEMS

ENVS 211

5 Credits

33 hours of lecture

44 hours of lab

First of a three-course sequence in Environmental Science. Introduction to environmental topics including environmental modeling and problem solving, sustainability, the scientific method, biodiversity, ecosystem organization, energy flow, material cycling, population growth, natural selection, island biogeography, ecological succession, and resource management. [SE]

FIELD STUDIES IN ENVIRONMENTAL SCIENCE

ENVS 218

1 - 7 Credits

22 hours of lecture

110 hours of lab

Learning field techniques for research in environmental science, interacting with scientists and others working in the field, and participating in the collection of research data. Topics include the interactions between scientists and other land managers in our natural environments. Projects vary depending on student interest and current work in the field area visited. Prerequisite: 5 credits in any Environmental Science, Geology or BIOL 101, 140, 141, 142, 143, 145, 150, 208, 221, 222, 223, 224 or BIOL& 100 with a grade of "C" or better, or consent of Instructional Unit. [SE]

ENVIRONMENTAL POLITICS

ENVS 231

5 Credits

55 hours of lecture

Examines the relationship between industrial civilization and the natural environment by exploring underlying ecological philosophies and the economic and political processes by which environmental decisions are made. Emphasis on critical thinking and evaluating alternative points of view. [SE]

SPECIAL PROJECTS

ENVS 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Family Life - Parent & Child

PARENT/BABY WORKSHOP

FLPC 004

1 Credits

11 hours of lecture

Learning activities, music and movement, parenting topics and guided interaction between parent and baby.

PARENT/TODDLER WORKSHOP

FLPC 014

1 Credits

11 hours of lecture

Learning activities to enhance development. Sensory/motor experiences, parenting topics and guided interaction between parent and child.

PRESCHOOL ENRICHMENT

FLPC 031 1 Credits
6 hours of lecture 11 hours of lab
Activities to encourage creativity and creative thinking in preschool children. Parent attends orientation class and children's lab class for 4 sessions. Child attends weekly. Contact department 992-2393 before enrolling.

PRESCHOOL ENRICHMENT

FLPC 032 1 Credits
6 hours of lecture 11 hours of lab
Activities to encourage creativity and creative thinking in preschool children. Parent attends orientation class and children's lab class for 4 sessions. Child attends weekly. Contact department 992-2393 before enrolling.

PRESCHOOL ENRICHMENT

FLPC 033 1 Credits
6 hours of lecture 11 hours of lab
Activities to encourage creativity and creative thinking in preschool children. Parent attends orientation class and children's lab class for 4 sessions. Child attends weekly. Contact department 992-2393 before enrolling.

PRESCHOOL WORKSHOP

FLPC 034 1 Credits
11 hours of lecture
For children aged 2 1/2 to 5. Learning and play activities for children. Parents gain skills by aiding in the preschool classroom. Child development, cognitive and social development.

PRESCHOOL ENRICHMENT WORKSHOPS

FLPC 044 1 Credits
11 hours of lecture
Activities to encourage creativity and creative thinking in preschool children.

INDEPENDENT LIVING

FLPC 080 3 Credits
33 hours of lecture
Provides foster parents with the knowledge and skills necessary to assess the readiness of, and prepare adolescents for, independent living.

PARENT AND INFANT

FLPC 101 1 - 2 Credits
22 hours of lecture
Parent participation class for parents and their babies, newborn to walking. Includes discussions on infant development, child care practices, and parenting techniques. Guided interaction between parent and baby. Activities to stimulate baby's development. Contact department before enrolling, 992-2393. [GE]

PARENT AND INFANT

FLPC 102 1 - 2 Credits
22 hours of lecture
Parent participation class for parents and their babies, newborn to walking. Includes discussions on infant development, child care practices, and parenting techniques. Guided interaction between parent and baby. Activities to stimulate baby's development. Contact department before enrolling, 992-2393. [GE]

PARENT/INFANT

FLPC 103 1 - 2 Credits
22 hours of lecture
Parent participation class for parents and their babies, newborn to walking. Includes discussions on infant development, child care practices, and parenting techniques. Guided interaction between parent and baby. Activities to stimulate baby's development. Contact department before enrolling, 992-2393. [GE]

PARENT/TODDLER

FLPC 111

1 - 2 Credits

22 hours of lecture

Toddlers ages 12-33 months attend classes one morning per week from 9:30-11:30 with their parent/caregivers. Classroom teachers design age appropriate learning experiences for the children and opportunities for parents to support their child's growing need for independence and exploration. Each interactive class includes a discussion time for parents with a family life instructor on topics such as child growth and development, guidance techniques, toilet learning, safety, health and nutrition and development activities. Two hours per week. Call 992-2393 to enroll. [GE]

PARENT/TODDLER

FLPC 112

1 - 2 Credits

22 hours of lecture

Toddlers ages 12-33 months attend classes one morning per week from 9:30-11:30 with their parent/caregivers. Classroom teachers design age appropriate learning experiences for the children and opportunities for parents to support their child's growing need for independence and exploration. Each interactive class includes a discussion time for parents with a family life instructor on topics such as child growth and development, guidance techniques, toilet learning, safety, health and nutrition and development activities. Two hours per week. Call 992-2393 to enroll. [GE]

PARENT/TODDLER

FLPC 113

1 - 2 Credits

22 hours of lecture

Toddlers ages 12-33 months attend classes one morning per week from 9:30-11:30 with their parent/caregivers. Classroom teachers design age appropriate learning experiences for the children and opportunities for parents to support their child's growing need for independence and exploration. Each interactive class includes a discussion time for parents with a family life instructor on topics such as child growth and development, guidance techniques, toilet learning, safety, health and nutrition and development activities. Two hours per week. Call 992-2393 to enroll. [GE]

PARENT/TODDLER

FLPC 114

1 - 2 Credits

22 hours of lecture

Toddlers ages 12-33 months attend classes one morning per week from 9:30-11:30 with their parent/caregivers. Classroom teachers design age appropriate learning experiences for the children and opportunities for parents to support their child's growing need for independence and exploration. Each interactive class includes a discussion time for parents with a family life instructor on topics such as child growth and development, guidance techniques, toilet learning, safety, health and nutrition and development activities. Two hours per week. Call 992-2393 to enroll. [GE]

PARENT PARTICIPATION PRESCHOOL

FLPC 131

1 - 3 Credits

11 hours of lecture

44 hours of lab

Parent participation pre-school at Clark College offers children and their family members an opportunity to learn and grow together. Children from 33 months to 5 years of age are enrolled and attend 2-3 times per week. Parents participate in the classroom and learn about child development, facilitating children's learning and creating a parent support group. Parenting classes are offered that provide opportunity to learn about effective guidance, parenting strategies, child development and community building. Call 992-2393 to enroll. Fees may be paid in three payments. 1st payment due at registration. [GE]

PARENT PARTICIPATION PRESCHOOL

FLPC 132

1 - 3 Credits

11 hours of lecture

44 hours of lab

Parent participation pre-school at Clark College offers children and their family members an opportunity to learn and grow together. Children from 33 months to 5 years of age are enrolled and attend 2-3 times per week. Parents

participate in the classroom and learn about child development, facilitating children's learning and creating a parent support group. Parenting classes are offered that provide opportunity to learn about effective guidance, parenting strategies, child development and community building. Call 992-2393 to enroll. Fees may be paid in three payments. 1st payment due at registration. [GE]

PARENT PARTICIPATION PRESCHOOL

FLPC 133

1 - 3 Credits

11 hours of lecture

44 hours of lab

Parent participation pre-school at Clark College offers children and their family members an opportunity to learn and grow together. Children from 33 months to 5 years of age are enrolled and attend 2-3 times per week. Parents participate in the classroom and learn about child development, facilitating children's learning and creating a parent support group. Parenting classes are offered that provide opportunity to learn about effective guidance, parenting strategies, child development and community building. Call 992-2393 to enroll. Fees may be paid in three payments. 1st payment due at registration. [GE]

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FLPC 134

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PARENT COOPERATIVE PRESCHOOL

FLPC 135

1 - 3 Credits

11 hours of lecture

44 hours of lab

Preschool experiences for children. Practice in parenting skills. Parents serve as aides to the teacher in the classroom 4-5 times a quarter, work on committees, and attend monthly meetings. Children 2 1/2 - 6 participate in 2 1/2 hour classes. Contact department before enrolling, 992-2393. Credit varies with amount of parent participation. [GE]

PARENT COOPERATIVE PRESCHOOL

FLPC 136

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11 hours of lecture

44 hours of lab

Preschool experiences for children. Practice in parenting skills. Parents serve as aides to the teacher in the classroom 4-5 times a quarter, work on committees, and attend monthly meetings. Children 2 1/2 - 6 participate in 2 1/2 hour classes. Contact department before enrolling, 992-2393. Credit varies with amount of parent participation. [GE]

PARENT COOPERATIVE PRESCHOOL

FLPC 137

1 - 3 Credits

11 hours of lecture

44 hours of lab

Preschool experiences for children. Practice in parenting skills. Parents serve as aides to the teacher in the classroom 4-5 times a quarter, work on committees, and attend monthly meetings. Children 2 1/2 - 6 participate in 2 1/2 hour classes. Contact department before enrolling, 992-2393. Credit varies with amount of parent participation. [GE]

EARLY INTERVENTION PARENT/CHILD PARTICIPATION

FLPC 141

1 Credits

6 hours of lecture

11 hours of lab

A participation class for parents/caregivers of children with developmental delays, ages birth to 36 months. This is a class designed to support parents/caregivers to meet the needs of their child through play and caretaking activities in the child's natural environment. Parents participate in the evaluation of their child's abilities and challenges and have learning opportunities through group meetings with other families receiving early intervention services as well

as the activities in the overall Child and Family Studies program. This course is designed to provide learning opportunities in areas including child and family development, guidance techniques, developing appropriate expectations, health as well as specific information related to their child's needs. [GE]

EARLY INTERVENTION PARENT/CHILD PARTICIPATION

FLPC 142

1 Credits

6 hours of lecture

11 hours of lab

A participation class for parents/caregivers of children with developmental delays, ages birth to 36 months. This is a class designed to support parents/caregivers to meet the needs of their child through play and caretaking activities in the child's natural environment. Parents participate in the evaluation of their child's abilities and challenges and have learning opportunities through group meetings with other families receiving early intervention services as well as the activities in the overall Child and Family Studies program. This course is designed to provide learning opportunities in areas including child and family development, guidance techniques, developing appropriate expectations, health as well as specific information related to their child's needs. [GE]

EARLY INTERVENTION PARENT/CHILD PARTICIPATION

FLPC 143

1 Credits

6 hours of lecture

11 hours of lab

A participation class for parents/caregivers of children with developmental delays, ages birth to 36 months. This is a class designed to support parents/caregivers to meet the needs of their child through play and caretaking activities in the child's natural environment. Parents participate in the evaluation of their child's abilities and challenges and have learning opportunities through group meetings with other families receiving early intervention services as well as the activities in the overall Child and Family Studies program. This course is designed to provide learning opportunities in areas including child and family development, guidance techniques, developing appropriate expectations, health as well as specific information related to their child's needs. [GE]

EARLY INTERVENTION PARENT/CHILD PARTICIPATION

FLPC 144

1 Credits

6 hours of lecture

11 hours of lab

A participation class for parents/caregivers of children with developmental delays, ages birth to 36 months. This is a class designed to support parents/caregivers to meet the needs of their child through play and caretaking activities in the child's natural environment. Parents participate in the evaluation of their child's abilities and challenges and have learning opportunities through group meetings with other families receiving early intervention services as well as the activities in the overall Child and Family Studies program. This course is designed to provide learning opportunities in areas including child and family development, guidance techniques, developing appropriate expectations, health as well as specific information related to their child's needs. [GE]

RAISING A RESPONSIBLE CHILD

FLPC 150

2 Credits

22 hours of lecture

Basic Dreikurs study-discussion group for parents of both pre- and elementary schoolers, with emphasis on child discipline and improving parent-child relationships. Alternatives to reward and punishment. Handling struggles for attention and power. [GE]

FAMILY CARE PROGRAMS

FLPC 151

3 Credits

33 hours of lecture

Training for parents providing child care in their homes. Child development and discipline, health, safety, nutrition and curriculum activities. [GE]

FOSTER CARE PARENTING I

FLPC 153

5 Credits

44 hours of lecture

22 hours of lab

Training for parents providing foster care. Characteristics of foster children, personality development, child abuse and neglect. Foster parent survival, separation of child from natural parents, and interagency functions. Permission required to enroll. [GE]

SYSTEMATIC TRAINING FOR EFFECTIVE PARENTING

FLPC 156 2 Credits
22 hours of lecture
A practical approach to parent-child relations. Learn how to communicate effectively and avoid discipline problems. [GE]

PARENT EFFECTIVENESS TRAINING

FLPC 160 2 Credits
22 hours of lecture
Learn to relate on an equal basis with others, children and adults, with a “no lose” conflict method. Training in active listening and honest, open communication skills, with a full expression of feelings, needs, and values. [GE]

SINGLE PARENT SURVIVAL

FLPC 161 1 Credits
11 hours of lecture
Parent participation workshops for single parents and their children. Family meal and discussion of nutrition and parenting skills. Support group for parents, problem solving, and participation in children’s classroom. Contact department before enrolling, 992-2393. [GE]

SINGLE PARENT SURVIVAL

FLPC 162 1 Credits
11 hours of lecture
Parent participation workshops for single parents and their children. Family meal and discussion of nutrition and parenting skills. Support group for parents, problem solving, and participation in children’s classroom. Contact department before enrolling, 992-2393. [GE]

SINGLE PARENT SURVIVAL

FLPC 163 1 Credits
11 hours of lecture
Parent participation workshops for single parents and their children. Family meal and discussion of nutrition and parenting skills. Support group for parents, problem solving, and participation in children’s classroom. Contact 699-0179 before enrolling. [GE]

PARENTING WORKSHOPS

FLPC 164 1 Credits
11 hours of lecture
Seminars on a variety of parenting topics including guidance, creativity, development, relationships, enrichment activities for children and health and nutrition. [GE]

FATHER/CHILD WORKSHOP

FLPC 168 1 Credits
11 hours of lecture
Enhancing father-child relations through guided activities and lecture/discussion. Father and child attend together. Workshop on varying topics based on age of children participating. Contact 699-0179 before enrolling. [GE]

PARENT AND CHILD

FLPC 171 1 - 2 Credits
22 hours of lecture
Parent participation preschool for working parents and their 2 1/2 to 6-year-old children. Establish nurturing relationships with children and provide opportunities for the development of competence and individuality. Contact department before enrolling, 992-2393. [GE]

PARENT AND CHILD

FLPC 172 1 - 2 Credits
22 hours of lecture
Parent participation preschool for working parents and their 2 1/2 to 6-year-old children. Establish nurturing rela-

tionships with children and provide opportunities for the development of competence and individuality. Contact department before enrolling, 992-2393. [GE]

PARENT AND CHILD

FLPC 173

1 - 2 Credits

22 hours of lecture

Parent participation preschool for working parents and their 2 1/2 to 6-year-old children. Establish nurturing relationships with children and provide opportunities for the development of competence and individuality. Contact department before enrolling, 992-2393. [GE]

PARENT EDUCATION FOR PARENTS WITH SIBLINGS

FLPC 181

3 Credits

22 hours of lecture

22 hours of lab

Child growth and development. Multi-aged classroom. Parents and children attend class together. Planned learning experiences for babies, toddlers, and preschoolers. Seminars and parent participation related to siblings and family relationships. [GE]

FAMILY LIVING SKILLS

FLPC 184

1 - 2 Credits

11 hours of lecture

22 hours of lab

Explore alternatives to everyday challenges of parenting and home management. Contact department before enrolling, 992-2393. [GE]

FAMILY LIVING SKILLS

FLPC 185

1 - 2 Credits

11 hours of lecture

22 hours of lab

Explore alternatives to everyday challenges of parenting and home management. Contact department before enrolling, 992-2393. [GE]

FAMILY LIVING SKILLS

FLPC 186

1 - 2 Credits

11 hours of lecture

22 hours of lab

Explore alternatives to everyday challenges of parenting and home management. Contact department before enrolling, 992-2393. [GE]

PRINCIPLES OF CHILD GUIDANCE

FLPC 268

2 Credits

22 hours of lecture

Effecting family relationships through principles of child management. Theory and practical applications, lecture-demonstrations of family counseling techniques. Parent and child groups. [GE]

First Aid & Health Care CPR

FIRST AID AND HEALTH CARE PROVIDER CPR

FACPR032

1 Credits

5 hours of lecture

First aid and cardiopulmonary resuscitation, for health care providers as required by the Washington Occupation and Health Act. Designed specifically for health care providers.

First Aid and CPR

FIRST AID AND HEALTH CARE PROVIDER CPR

FACPR032

1 Credits

5 hours of lecture

First aid and cardiopulmonary resuscitation, for health care providers as required by the Washington Occupation and Health Act. Designed specifically for health care providers.

Fitness Trainer

FITNESS TRAINER SEMINAR

FT 101

1 Credits

11 hours of lecture

Career exploration course focusing on gaining insight into the roles, professional duties, and responsibilities of fitness/health professionals across the fitness industry. [GE]

FUNDAMENTALS OF FITNESS

FT 150

3 Credits

33 hours of lecture

Basic principles of exercise science, exercise prescription and risk management for the fitness professional. [GE]

FITNESS CENTER SKILLS

FT 151

2 Credits

44 hours of lab

Develop skills related to exercise techniques and instruction focusing on cardio machines, weight machines and basic free weights. [GE]

FLEXIBILITY, POSTURE AND CORE

FT 152

2 Credits

44 hours of lab

Develop skills related to exercise assessment, technique and instruction focusing on flexibility, posture and core. [GE]

EXERCISE TECHNIQUES

FT 153

2 Credits

44 hours of lab

Develop skills related to exercise techniques and instruction focusing on running/sprinting form, introduction to plyometrics, and the use of body weight, dumbbells, elastic tubing, and stability balls for resistance training. [GE]

POWER DEVELOPMENT

FT 154

2 Credits

44 hours of lab

Develop skills related to exercise technique and instruction focusing on power, speed, agility and quickness. Prerequisite: A grade of "C" or better in FT 151. [GE]

GROUP FITNESS INSTRUCTOR

FT 155

2 Credits

44 hours of lab

Develop skills related to exercise technique and instruction focusing on group exercise training to music. Concurrent enrollment in FT 150, or completion of FT 260 and FT 220 with a grade of "C" or better. [GE]

NUTRITION FOR FITNESS

FT 200

3 Credits

33 hours of lecture

Develop strategies for encouraging nutritious eating and weight management. Discuss eating disorders. Explore performance nutrition and supplementation. Acquire a variety of diet and analysis tools to use with clients within

the scope of practice for the personal trainer. Prerequisite: A grade of “C” or better in HLTH 100 and MATH 090 or 091. [GE]

WELLNESS COACHING

FT 210 3 Credits

22 hours of lecture 22 hours of lab

Develop collaborative communication style and motivational skills to help clients adopt healthier lifestyles. Prerequisite: A grade of “C” or better in CMST& 210 and FT 101. [GE]

FACILITY MANAGEMENT

FT 220 3 Credits

33 hours of lecture

Risk management in a fitness facility setting. Topics include liability, personnel, safety, facility layout, repair, and maintenance of fitness equipment. Students will receive First Aid/CPR/AED certification upon successful completion of the class. Prerequisite: A grade of “C” or better in FT 101. [GE]

FITNESS TESTING

FT 230 3 Credits

11 hours of lecture 44 hours of lab

Methods of assessment of client health, fitness, nutrition, and exercise behavior. Developing skills for assessing blood pressure, body composition, cardio-respiratory fitness, flexibility, and muscular strength/endurance. Concurrent enrollment in FT 251. Prerequisite: A grade of “C” or better in HPE 258 and MATH 090 or 091. [GE]

STRUCTURAL KINESIOLOGY

FT 250 3 Credits

22 hours of lecture 22 hours of lab

Overview of anatomical and mechanical bases of human movement. Prerequisite: A grade of “C” or better in FT 151. [GE]

EXERCISE PHYSIOLOGY

FT 251 4 Credits

44 hours of lecture

Study of physiological responses and adaptations of the body to exercise: topics include principles related to disease prevention, the cardio-respiratory system, neuromuscular system, environmental stress, supplementation, nutrition, metabolism, body composition, and weight management. Prerequisite: A grade of “C” or better in BIOL 164/165 or BIOL& 253 (or BIOL 160/161 or BIOL 233). [GE]

EXERCISE PRESCRIPTION I-HEALTHY POPULATIONS

FT 260 5 Credits

44 hours of lecture 22 hours of lab

Designing client-centered fitness plans intended to help apparently healthy clients achieve their health and fitness goals in a safe and effective manner. Prerequisite: A grade of “C” or better in ENGL& 101 or ENGL 135 (or ENGL 101 or 111), FT 210 and FT 251. [GE]

EXERCISE PRESCRIPTION II - SPECIAL POPULATIONS

FT 261 5 Credits

55 hours of lecture

Designing individualized fitness plans to help clients with special needs achieve their health and fitness goals in a safe and effective manner. Prerequisite: A grade of “C” or better in FT 260. [GE]

EXERCISE PRESCRIPTION III - PERFORMANCE TRAINING

FT 262 4 Credits

22 hours of lecture 44 hours of lab

Emphasizes endurance and resistance training methodology. Lifting techniques, and teaching methods for body building/sculpting, power lifting, and Olympic lifting are addressed. Technical, tactical and conditioning aspects of endurance training focus on swimming, bicycling, running and cardio machines. Prerequisite: A grade of “C” or better in FT 260. [GE]

PROFESSIONAL ASPECTS OF FITNESS TRAINING

FT 270 3 Credits
33 hours of lecture
Focuses on personal training as a business: business planning, marketing, customer service, work ethic, management systems, resume development and interviewing skills. [GE]

FITNESS TRAINING INTERNSHIP

FT 275 4 Credits
132 hours of clinical
Experience hands-on fitness training at one or more approved worksites. Prerequisite: A grade of "C" or better in FT 220. [GE]

SPECIAL TOPICS

FT 280 1 - 5 Credits
55 hours of lecture
Varying topics in the Fitness Training Industry, as listed in the quarterly class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS

FT 290 1 - 5 Credits
Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructor. [GE]

FINAL SKILL ASSESSMENT

FT 299 1 Credits
22 hours of lab
Comprehensive assessment of Fitness Trainer AAS degree student learning outcomes. Students must pass this course at 70% or better to earn their AA-Fitness Trainer from Clark College. Prerequisite: A grade of "C" or higher for FT 260.

Food - Culinary Arts

FOOD SERVICE

FOOD 102 4 Credits
88 hours of lab
Line and line backup, serving methods, portion control, and cash register training. [GE]

FOOD SERVICE

FOOD 103 4 Credits
88 hours of lab
Continuation of FOOD 102, with greater emphasis on particular line positions and their interactions with the whole line's purpose. [GE]

FOOD SERVICE

FOOD 104 4 Credits
88 hours of lab
Continuation of FOOD 103 with further emphasis on line positions and an analysis of customer relations. [GE]

FOOD SERVICE

FOOD 105 4 Credits
88 hours of lab
Serving under banquet, catering, fast food and take-out conditions. Preparation and clean up. [GE]

COOKING THEORY

FOOD 111 5 Credits
55 hours of lecture
Theory including equipment safety, kitchen methods, soups, stocks, and salads. Concurrent enrollment in FOOD 112 required. [GE]

FOOD PRODUCTION

FOOD 112 4 Credits
88 hours of lab
Sanitation, safety, entrees, casseroles, fruit, and quick breads. Careers in the food industry. Concurrent enrollment in FOOD 111 required. [GE]

COOKING THEORY

FOOD 113 5 Credits
55 hours of lecture
Theory including sanitation, safety, entrees, casseroles, fruit, quick breads, and careers in the food industry. Also includes garde manger (food decoration). Concurrent enrollment in FOOD 114 required. [GE]

FOOD PRODUCTION

FOOD 114 4 Credits
88 hours of lab
Continuation of FOOD 112. Production cooking and management related to topics covered in FOOD 113. Concurrent enrollment in FOOD 113 required. [GE]

COOKING THEORY

FOOD 115 5 Credits
55 hours of lecture
Theory including safety, sanitation, vegetable preparation, desserts, and job interviewing. Concurrent enrollment in FOOD 116 required. [GE]

FOOD PRODUCTION

FOOD 116 4 Credits
88 hours of lab
Continuation of FOOD 114. Production cooking and management related to topics covered in FOOD 115. Concurrent enrollment in FOOD 115 required. [GE]

COOKING THEORY

FOOD 117 5 Credits
55 hours of lecture
Problems involved in preparation for banquets, catering, fast food and take-out food services. Concurrent enrollment in FOOD 118 required. [GE]

FOOD PRODUCTION

FOOD 118 4 Credits
88 hours of lab
Banquet, catering, deli and fast food. Concurrent enrollment in FOOD 117 required. [GE]

KITCHEN SET-UP

FOOD 120 2 Credits
44 hours of lab
Opening up a kitchen, inventorying food, setting-up food stations, turning on all equipment, pre-planning the day's activities, and breakfast cooking. [GE]

KITCHEN SET-UP

FOOD 121 2 Credits
44 hours of lab
Continuation of FOOD 120 with further emphasis on efficient kitchen operations. Prerequisite: FOOD 120. [GE]

KITCHEN SET-UP

FOOD 122 2 Credits

44 hours of lab

Learning kitchen equipment set-up. Getting kitchen stations ready for the day's food preparation. [GE]

KITCHEN SET-UP

FOOD 123 2 Credits

44 hours of lab

Setting-up a dining room and working with problems of pre-opening operations. [GE]

FOOD DECORATION

FOOD 125 3 Credits

22 hours of lecture 22 hours of lab

Garnishing techniques with fruits and vegetables. Dessert garnishes and basic use of pastry bag and tips. [GE]

ADVANCED GARDE MANGER

FOOD 126 3 Credits

22 hours of lecture 22 hours of lab

Garnishing techniques with fruits and vegetables. Advanced melon and flower carving. Use of these and other items to create presentation pieces or centerpieces. [GE]

HORS D'OEUVRES - PATES

FOOD 127 3 Credits

22 hours of lecture 22 hours of lab

Basic preparation of pates and terrines and other related forcemeat preparation -- quenelles, galantines, ballotines, etc. Discussion of French terminology, especially pertaining to garde manger - selection, preparation, and presentation of hors d'oeuvres for entertaining. [GE]

GUMPASTE FLOWERS

FOOD 128 3 Credits

22 hours of lecture 22 hours of lab

Basics of preparing, handling, molding, and drying gumpaste (pastillage) flowers. [GE]

ICE CARVING

FOOD 130 3 Credits

22 hours of lecture 22 hours of lab

Basic ice carving and display techniques. Use of tools and templates. [GE]

DINING ROOM THEORY

FOOD 131 4 Credits

44 hours of lecture

Theory and practice of restaurant table service including customer psychology, taking and filling orders, table setting, and styles of service. [GE]

DINING ROOM PRODUCTION

FOOD 132 5 Credits

110 hours of lab

Organization and set-up of dining room prior to operation, stocking of "service" stations, and dining table set-up. [GE]

DINING ROOM SERVICE

FOOD 133 5 Credits

110 hours of lab

Restaurant table service and practice including taking, writing and placing orders, customer seating and service, cash control, and special problems. [GE]

SOUPS AND SAUCES

FOOD 134 3 Credits
22 hours of lecture 22 hours of lab
Methods of making basic and advanced soups and sauces. [GE]

WINE APPRECIATION

FOOD 140 3 Credits
33 hours of lecture
History of wines: how they are made, aged, and stored, along with actual tasting sessions to educate the palate.
[GE]

MENU PLANNING

FOOD 141 3 Credits
33 hours of lecture
Basic principles of nutrition and menu planning. [GE]

COOPERATIVE WORK EXPERIENCE

FOOD 199 1 - 5 Credits
165 hours of clinical
Supervised work experience in a hospitality-related job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

MANAGEMENT THEORY

FOOD 223 5 Credits
55 hours of lecture
Purchasing, receiving, and inventorying of food supplies. Calculating labor-cost percentages. Concurrent enrollment in FOOD 240 required. Prerequisite: Consent of Instructional Unit. [GE]

MANAGEMENT THEORY

FOOD 225 5 Credits
55 hours of lecture
Decorating with food, buffet set-ups, hors d'oeuvres, canapes, basic and gourmet food preparation including ice carving and tallow showpieces. Concurrent enrollment in FOOD 241 required. Prerequisite: Consent of Instructional Unit. [GE]

MANAGEMENT THEORY

FOOD 227 5 Credits
55 hours of lecture
Menu analysis, restaurant security, job applications, resumes and interviews. Concurrent enrollment in FOOD 242 required. Prerequisite: Consent of Instructional Unit. [GE]

MANAGEMENT THEORY

FOOD 229 5 Credits
55 hours of lecture
Advanced food preparation techniques and classical cooking information. Scheduling and layout for banquets and buffets. Concurrent enrollment in FOOD 243 required. Prerequisite: Consent of Instructional Unit. [GE]

BEGINNING MEAT CUTTING

FOOD 235 3 Credits
11 hours of lecture 44 hours of lab
Individualized study of meat-cutting techniques related to retail sales and commercial use. [GE]

INTERMEDIATE MEAT CUTTING

FOOD 236 3 Credits
11 hours of lecture 44 hours of lab
Study of meat-cutting techniques for beef, pork, poultry, and lamb. Brief overview of cooking techniques for the various cuts of meat. Prerequisite: FOOD 235. [GE]

ADVANCED MEAT CUTTING

FOOD 237 3 Credits
11 hours of lecture 44 hours of lab
To supply the students with the knowledge, technical skills and information necessary to manage all phases of meat and poultry cutting in a food service operation. Prerequisite: FOOD 235 and 236. [GE]

RESTAURANT MANAGEMENT

FOOD 240 8 Credits
176 hours of lab
Practical instruction in restaurant management by working at various management stations. Prerequisite: Consent of Instructional Unit. [GE]

RESTAURANT MANAGEMENT

FOOD 241 8 Credits
176 hours of lab
Practical instruction in restaurant management by working at various management stations. Prerequisite: FOOD 240 or consent of Instructional Unit. [GE]

RESTAURANT MANAGEMENT

FOOD 242 8 Credits
176 hours of lab
Practical instruction in restaurant management by working at various management stations. Prerequisite: FOOD 241 or consent of Instructional Unit. [GE]

RESTAURANT MANAGEMENT

FOOD 243 8 Credits
176 hours of lab
Practical instruction in restaurant management by working at various management stations. Prerequisite: FOOD 242 or consent of Instructional Unit. [GE]

ADVANCED KITCHEN SET-UP

FOOD 250 2 Credits
44 hours of lab
Staff management and early morning kitchen set-up. [GE]

ADVANCED KITCHEN SET-UP

FOOD 251 2 Credits
44 hours of lab
Organization and set-up of management stations. [GE]

ADVANCED KITCHEN SET-UP

FOOD 252 2 Credits
44 hours of lab
Organization and set-up of management stations. [GE]

ADVANCED KITCHEN SET-UP

FOOD 253 2 Credits
44 hours of lab
Organization and set-up of management stations. [GE]

SPECIAL PROJECTS

FOOD 290

1 - 12 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Forensic Science

SURVEY OF FORENSIC SCIENCE

FSCI 101

3 Credits

33 hours of lecture

An introduction to the Forensic Sciences: crime scene analysis and recording, the crime laboratory, Forensic Medicine, Dentistry, Anthropology, Psychology, and other topics. [SE]

SELECTED TOPICS: FORENSIC SCIENCE

FSCI 280

3 Credits

33 hours of lecture

Selected topics in the Forensic Sciences as listed in the quarterly schedule. May be repeated for credit. Prerequisite: None/or Law enforcement officers only for some topics. [SE]

SPECIAL PROJECTS

FSCI 290

1 - 5 Credits

Varying topics in the forensic sciences as listed in the quarterly class schedule. May be repeated for credit. Prerequisite: Consent of Instructional Unit. [GE]

French

FRENCH I

FRCH& 121

5 Credits

55 hours of lecture

Communicating in French with practice in listening, speaking, writing, and reading. [HA, SE]

FRENCH II

FRCH& 122

5 Credits

55 hours of lecture

Continuation of FRCH& 121. [HA, SE]

FRENCH III

FRCH& 123

5 Credits

55 hours of lecture

Continuation of FRCH& 122. Completion of FRCH& 122 or equivalent, or F-Cape placement test recommended. Formerly FREN 103. Credit not allowed for both FREN 103 and FRCH& 123. [HA, SE]

CONVERSATIONAL FRENCH

FRCH 141

3 Credits

33 hours of lecture

Intensive practice in French conversation. Discussion in pairs or small groups on topics of interest to those studying French-speaking societies. Prerequisite: Consent of Instructional Unit. Formerly FREN 141. Credit not allowed for both FREN 141 or FRCH 141. [HB, SE]

STUDY ABROAD ORIENTATION

FRCH 150

1 Credits

11 hours of lecture

Preparing students to travel with the Clark College study abroad program to a French-speaking country. Successful completion of the course required for students to participate in the travel abroad program. Application and accep-

tance into the study abroad program also required. Prerequisite: A grade of “C” or better or concurrent enrollment in FRCH& 121 or above; or consent of Instructional Unit. [SE]

FRENCH IV

FRCH& 221 5 Credits

55 hours of lecture

Review of basic structures, expansion of conversation, and reading skills. [HA, SE]

FRENCH V

FRCH& 222 5 Credits

55 hours of lecture

Review of basic structures, expansion of conversation, and reading skills. Prerequisite: FRCH& 221 or equivalent. [HA, SE]

FRENCH VI

FRCH& 223 5 Credits

55 hours of lecture

Review of basic structures, expansion of conversation, and reading skills. Prerequisite: FRCH& 222 or equivalent. [HA, SE]

SELECTED TOPICS

FRCH 280 1 - 5 Credits

55 hours of lecture

The course focuses on selected topics in French. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule. [SE]

SPECIAL PROJECTS

FRCH 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

General Education

SPECIAL TOPICS

GED 005 1 - 10 Credits

110 hours of lecture

Special interest topics at the GED level for students who qualify based upon CASAS Test scores. Topics vary and course may be repeated for credit for different topics.

GED WRITING FUNDAMENTALS

GED 011 1 - 6 Credits

66 hours of lecture

Students performing at GED level will learn to write understandable and well-constructed multiple paragraphs easily and with few errors to independently accomplish well defined and structured writing activities for varied reasons (such as for personal expression, to inform, to persuade or to complete a task) and for audiences in a range of comfortable and familiar settings. Organization, transitions, punctuation and sentence structure skills are emphasized. This course can serve as preparation for the GED Writing Test or as refresher course for basic skills improvement. Prerequisite: Appropriate CASAS score.

GED MATH I

GED 021 1 - 6 Credits

66 hours of lecture

Students will learn to read, write, interpret, and apply a wide variety of mathematical information such as the following: money/expenses/prices, percentages, decimals, fractions, patterns and formulas, units of measurement including fractional units, geometrical shapes including shapes containing a combination of common shapes, con-

cept of volume, and ways to interpret, represent and draw implications from data (graphs, tables, and simple forms of statistical analysis). Prerequisite: ABE MATH 024 or appropriate CASAS placement score.

GED READING II

GED 032

1 - 2 Credits

22 hours of lecture

Analysis of literature, science and social studies readings. Skills include distinguishing between fact and opinion, understanding elements of style and structure, interpreting charts and graphs, and increasing comprehension. Test taking skills taught and practiced. Last in a series of courses for improvement of basic skills in reading. This course serves as preparation for the GED Reading Tests in Literature, Science and Social Studies, or as a refresher course for basic skills improvement. Prerequisite: ABE 034 or recommending score on placement test.

GED READING: LITERATURE

GED 033

1 - 2 Credits

22 hours of lecture

Developing and refining secondary level reading and test taking skills with literary texts. Uses of works of nonfiction, fiction, poetry, and drama to develop competencies in comprehension, application, analysis, synthesis, and evaluation of concepts; last in a series of courses in preparation for the GED Language Arts Reading Test and a refresher for basic skills reading improvement. Prerequisite: ABE 034 Reading or recommending score on CASAS pretest.

GED READING, SOCIAL STUDIES

GED 035

1 - 2 Credits

22 hours of lecture

Developing strong secondary reading and critical thinking skills with social studies materials. Exercises involve reading social studies passages and interpreting graphs, charts, maps, cartoons, diagrams, and photography. Content includes world history, civics and government, economics and geography, last in a series of courses in preparation for the GED Social Studies Test and a refresher for basic skills reading improvement. Prerequisite: ABE 044 Reading or recommending score on CASAS pretest.

GED READING: SCIENCE 037

GED 037

1 - 2 Credits

22 hours of lecture

Developing strong secondary reading and critical thinking skills with scientific materials. Exercises involve reading scientific passages and interpreting graphs, charts, maps, and diagrams. Content includes earth and space science, life science, and physical science (physics and chemistry); the last in a series of courses in preparation for the GED Science Test, a refresher for basic skills reading improvement. Prerequisite: ABE 044 or recommending score on CASAS pretest.

I-BEST SUPPORT

GED 071

1 - 6 Credits

66 hours of lecture

Provides Basic Skills students extra instruction and support for success in their I-BEST designated classes. Reviews important concepts and vocabulary introduced during I-BEST classes. Provide opportunities to develop culturally unfamiliar customer service and interaction skills needed to be successful in I-BEST occupations. Prerequisite: Admission into an I-BEST program.

WRITING BASICS FOR GED

GED 094

5 Credits

55 hours of lecture

Emphasis on writing more fluently, clearly, and correctly. Building skills through exercises in grammar, writing responses to assigned readings, and planning, organizing, drafting, and revising paragraphs. In-class and out-of-class paragraphs are required. Prerequisite: CASAS score of 240 or higher, or permission of instructor.

Geography

INTRODUCTION TO GEOGRAPHY

GEOG& 100

5 Credits

55 hours of lecture

Survey of our natural environment, Earth-Sun-Moon relationships, cartography, weather and climate, landforms, soils, oceans, and water and biotic resources. Also a survey of the countries and major features of the world. [SE, SS]

ECONOMIC GEOGRAPHY

GEOG 107

5 Credits

55 hours of lecture

Broad patterns, courses, and consequences of interrelationships between economic and geographic forces, processes, and resources. Location of economic activity, population dynamics, strategic resources, global economic flashpoints, patterns/consequences of regional integration. Same as ECON 107. Credit not allowed for both ECON 107 and GEOG 107. [SE, SS]

ECONOMIC GEOGRAPHY

GEOG& 207

5 Credits

55 hours of lecture

Broad patterns, courses, and consequences of interrelationships between economic and geographic forces, processes, and resources. Location of economic activity, population dynamics, strategic resources, global economic flashpoints, patterns/consequences of regional integration. Previously GEOG 107. Credit not allowed for GEOG& 207, ECON 107 and GEOG 107.

THE GEOPOLITICS OF THE MIDDLE EAST

GEOG 220

5 Credits

55 hours of lecture

Geo-political survey of the Middle East, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of the Middle East on the rest of the world, as well as the impact and influence of the rest of the world on the Middle East. Credit not allowed for both GEOG 220 and POLS 220. [SE]

THE GEOPOLITICS OF AFRICA

GEOG 221

5 Credits

55 hours of lecture

Geo-political survey of Africa, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Africa on the rest of the world, as well as examine the impact and influence of the rest of the world on Africa. Credit not allowed for both GEOG 221 and POLS 221. [SE]

THE GEOPOLITICS OF CHINA, JAPAN & EAST ASIA

GEOG 222

5 Credits

55 hours of lecture

Geo-political survey of China, Japan and East Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of China, Japan and East Asia on the rest of the world, as well as examine the impact and influence of the rest of the world on China, Japan and East Asia. Credit not allowed for both GEOG 222 and POLS 222. [SE]

THE GEOPOLITICS OF SOUTH AND CENTRAL ASIA

GEOG 223

5 Credits

55 hours of lecture

Geo-political survey of South and Central Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of South and Central Asia on the rest of the world, as well as examine the impact and influence of the rest of the world on South and Central Asia. Credit not allowed for both GEOG 223 and POLS 223. [SE]

SELECTED TOPICS

GEOG 280

1 - 5 Credits

55 hours of lecture

Course focuses on selected topics in Geography. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

GEOG 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Geology

INTRO PHYSICAL GEOLOGY

GEOL& 101

5 Credits

33 hours of lecture

88 hours of lab

A dynamic earth, geologic time, origin and identification of minerals and rocks. Volcanoes, earthquakes and the structure of earth in light of plate tectonic theory. One day field trip required. [NS, SE]

INTRO TO GEOL II: EARTH'S SURFACE PROCESSES

GEOL 102

5 Credits

33 hours of lecture

44 hours of lab

Plate tectonics and the origin of ocean basins and continents. Mass wasting, glaciation, streams, groundwater, deserts, shorelines and deep sea sediments. One day field trip required. [NS, SE]

COOPERATIVE WORK EXPERIENCE

GEOL 199

1 - 3 Credits

99 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

FIELD STUDIES IN GEOLOGY

GEOL 218

1 - 6 Credits

22 hours of lecture

88 hours of lab

Field trip program to study the geologic evolution of an area. Emphasis on interpretation of rocks and their structure. Duration, scope and field trip localities will vary. Food and personal gear provided by student. Maxivans provided for travel. Day hikes may be required. Prerequisite: Minimum of 10 credits in geology or consent of Instructional Unit. [NS, SE]

SPECIAL PROJECTS

GEOL 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

German

GERMAN I

GERM& 121 5 Credits
55 hours of lecture

Oral and written communication in German. Use of basic vocabulary and structures to acquire information and to express personal interests, needs and opinions on familiar topics. Contemporary German culture. [HA, SE]

GERMAN II

GERM& 122 5 Credits
55 hours of lecture

Continuation of GERM& 121 with emphasis on developing the students' ability to express themselves freely on familiar topics. [HA, SE]

GERMAN III

GERM& 123 5 Credits
55 hours of lecture

Continuation of GERM& 122 with emphasis on developing students' ability to express themselves freely on familiar topics. [HA, SE]

BERLIN IN FILM AND LITERATURE

GERM 150 3 Credits
33 hours of lecture

Survey of Berlin during two centuries of recent history, using a critical exploration of literary, filmic, and artistic works on and of Berlin. Conducted in English, this course is open to all students and is mandatory before departure for students participating in the German Studies in Berlin Program. While open to the campus, this course is required for those students accepted into the German Studies in Berlin Program and will be offered in the summer prior to departure for Germany. Course will be conducted in English. There are no language prerequisites. [SE]

GERMAN IV

GERM& 221 5 Credits
55 hours of lecture

Thematic approach to contemporary German culture and literature. Discussions and papers in German. Grammar review. [HA, SE]

GERMAN V

GERM& 222 5 Credits
55 hours of lecture

Thematic approach to contemporary German culture and literature. Discussions and papers in German. Grammar review. Prerequisite: GERM& 221 or equivalent. [HA, SE]

GERMAN VI

GERM& 223 5 Credits
55 hours of lecture

Thematic approach to contemporary German culture and literature. Discussions and papers in German. Grammar review. Prerequisite: GERM& 222 or equivalent. [HA, SE]

SELECTED TOPICS

GERM 280 1 - 5 Credits
55 hours of lecture

Course focuses on selected topics in German. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

GERM 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Health

FOOD AND YOUR HEALTH

HLTH 100

2 Credits

22 hours of lecture

Exploration of the connection between food choices and health with an emphasis on whole foods. Focus on developing personalized healthy strategies to advance health. [HE, SE]

HEALTH FOR ADULT LIVING

HLTH 101

3 Credits

33 hours of lecture

Exploration of the connection between personal choices and health across multiple dimensions of wellness. Focus on developing personalized behavior change strategies to advance health. [HE, SE]

ENVIRONMENTAL HEALTH

HLTH 103

2 Credits

22 hours of lecture

Exploration of the connection between personal choices, human health, and the environment. Focus on developing personalized behavior change strategies to advance health. [HE, SE]

WEIGHT AND YOUR HEALTH

HLTH 104

2 Credits

22 hours of lecture

Exploration of the connection between weight and health. Focus on the multiple factors that contribute to optimal health and on developing personalized behavior change strategies to advance health at any size. [HE, SE]

ADULT CPR AND FIRST AID

HLTH 120

1 Credits

11 hours of lecture

Introduction to adult CPR and general first aid skills that will prepare the student to recognize emergencies, make first aid decisions, and provide care. Upon successful completion of the course, students will receive Adult CPR and Standard First Aid certification. Does not meet AA distribution requirement. [GE]

ADULT, CHILD, AND INFANT CPR

HLTH 121

1 Credits

11 hours of lecture

Introduction to adult, child and infant CPR skills that will prepare the student to recognize emergencies, make appropriate decisions, and provide emergency care. Upon successful completion of the course, students will receive Adult, Child and Infant CPR certification. [GE]

WILDERNESS FIRST AID

HLTH 122

2 Credits

22 hours of lecture

Foundation of first aid principles and skills necessary to respond to emergencies where immediate emergency medical services are not available, such as wilderness, remote environments, and urban disasters. Prerequisite: Proof of current Adult CPR/AED certification (bring to first class). [SE]

PEDIATRIC FIRST AID & CPR

HLTH 123

1 Credits

11 hours of lecture

First aid preparation to prevent injuries and respond to emergencies involving children and infants. Skills include child and infant CPR, use of an AED, first aid, and injury prevention. Successful completion of the course includes certification for first aid, child and infant CPR and AED. Does NOT fulfill health distribution requirement.

HUMAN SEXUALITY

HLTH 206

2 Credits

22 hours of lecture

Exploration of the connection between personal choices and sexual health through the life cycle. Focus on social, cultural and historical influences and on developing personalized behavior change strategies to advance sexual health. [HE, SE]

WOMEN'S HEALTH

HLTH 207

2 Credits

22 hours of lecture

Exploration of women's personal health. Focus on social, cultural and historical influences and on developing personalized behavior change strategies to advanced health. [HE, SE]

MEN'S HEALTH

HLTH 208

2 Credits

22 hours of lecture

Exploration of men's personal health. Focus on social, cultural and historical influences and on developing personalized behavior change strategies to advance health. [HE, SE]

MULTICULTURAL HEALTH

HLTH 210

2 Credits

22 hours of lecture

Exploration of the current health system within the US and the cultures that shaped its foundation. Focus on developing personalized behavior change strategies to advanced health.

SELECTED TOPICS

HLTH 280

1 - 3 Credits

33 hours of lecture

Course focuses on selected topics in health. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

HLTH 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Health & Physical Education

INDUSTRIAL HEALTH AND FITNESS

HPE 220

3 Credits

22 hours of lecture

22 hours of lab

Study of health and fitness for those entering the workforce in industrial jobs. Includes workplace safety and First Aid/CPR skills. Health issues explored include nutrition, fitness, stress management, substance abuse, and disease prevention. Students will be eligible to receive CPR/First Aid certification. [GE]

FITNESS-WELLNESS

HPE 258 3 Credits
22 hours of lecture 44 hours of lab
Exploration of the connection between fitness and health. Focusing on nutrition, stress, and developing a personalized health plan for lifelong physical activity. Participating in physical activity is required. Activities focus on improving flexibility, strength and cardiovascular fitness. Fulfills both Health and Physical Education requirements. [HP, SE]

MIND BODY HEALTH

HPE 266 3 Credits
22 hours of lecture 44 hours of lab
Exploration of the mind/body connection. Focusing on health, illness, healing, and developing personalized behavior change strategies to advance health. Participating in movement activities is required. Activities may include meditation, yoga, tai chi and breathing techniques in addition to activities that improve strength and cardiovascular fitness. Fulfills both Health and Physical Education requirements. [HP, SE]

SELECTED TOPICS

HPE 280 1 - 5 Credits
55 hours of lecture
Varying topics in Health Physical Education and sports, as listed in the quarterly class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS

HPE 290 1 - 5 Credits
Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Health Informatics

INTRODUCTION TO US HEALTH CARE SYSTEM

HI 201 3 Credits
33 hours of lecture
Introduction to U.S. health care systems: the major components and the interaction of elements within the system, including the history, issues and problems of today's system. Topics include the national context and history of health services, international health systems, the role of government in health care, health insurance, Medicaid, Medicare, managed care, hospitals and facilities, health workforce, medical technologies, access and quality of care and the future of the health care system. Focus on the future direction of healthcare and identifying likely changes. Readings and discussion cover consumer, industry and governmental agendas related to improving the US health care system.

INTRODUCTION TO HEALTH CARE QUALITY

HI 202 3 Credits
33 hours of lecture
Introduction to the principles, processes and procedures associated with measuring, managing and improving quality in the delivery of health care, health services and health care management. Presents various national efforts, systems and tools used in quality assessment, performance, improvement and measurement.

INTRODUCTION TO HEALTH SERVICES MANAGEMENT

HI 210 3 Credits
33 hours of lecture
Introduction to managerial skills and behaviors applied to components of health care organizations at several levels: including individual, interpersonal, group, intergroup, system, and inter-organization; managerial challenges faced by health care managers and skills essential for successfully planning, organizing, directing, and controlling. Topics include strategic and operational planning, human resource management, motivation, communication, conflict resolution, organizational structures, health care budgeting and finance.

INTRODUCTION TO HEALTH INFORMATICS

HI 211

3 Credits

33 hours of lecture

Introduction to health informatics, the application of computers, communication and information technologies combined with systems used in problem solving, decision making to improve health and health care. Topics include a survey of history, basic knowledge of health informatics, data management, standards and tools used in the support of health care delivery. Emphasis on impact of information technology on the health care industry and vice versa. Intended as a survey of the emerging field of health informatics, allowing interested students to learn its significance, its breadth, and its opportunities.

Health Occupations

MATH FOR MEDICATION ADMINISTRATION

HEOC 011

1 Credits

11 hours of lecture

Mathematical concepts related to the metric system and calculating dosages for oral and injectable medications, and converting Fahrenheit to Celsius. Designed to prepare an individual for the safe preparation and administration of medications in a physician's office, clinic or emergi-center. Prerequisite: Qualifying score on the college numerical skills placement for MATH 030 or higher or consent of Instructional Unit.

MATH REVIEW FOR DENTAL HYGIENE

HEOC 012

1 Credits

11 hours of lecture

Math refresher for Dental Hygiene students. Concurrent enrollment in DH 163 required.

BASIC CHEMICAL CONCEPTS

HEOC 030

2 Credits

22 hours of lecture

Basic structure of matter and its interaction at the atomic level. Chemical vocabulary, natural laws, physical properties, and the symbolism used in chemistry will be developed.

PHLEBOTOMY REMEDIATION

HEOC 080

1 Credits

6 hours of lecture

11 hours of lab

Provides additional laboratory practice of phlebotomy skills and reinforces material related to the clinical practice of phlebotomy. For students who earned a "B" in the lecture portion of HEOC 115 but were clinically incomplete in laboratory portion of the course and have their instructor's recommendation for remediation. A grade of "B" or better is required in this course to be eligible for enrollment in HEOC 197 and 198 Phlebotomy Practicum and Seminar. Prerequisite: A grade of "B" or better in HEOC 115 lecture and departmental permission.

BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY

HEOC 100

3 Credits

33 hours of lecture

Introduction to basic anatomical and physiological concepts as they apply to the following health occupations: EMT, Pharmacy Tech, Medical Assisting, and Phlebotomy. Basic overview of all body systems including the respiratory, muscular, urinary, reproductive, digestive, cardiovascular, lymphatic, immune, nervous skeletal, integumentary and the senses. Concurrent enrollment is linked HEOC 101 lab. [GE]

BASIC CONCEPTS OF ANATOMY & PHYSIOLOGY LAB

HEOC 101

1 Credits

22 hours of lab

Laboratory companion to HEOC 100. Activities which apply concepts taught in the lecture section to clinical practice. Designed especially for students enrolled in the Medical Assisting program. This course is for most Medical Office Programs, Phlebotomy and EMT 103. Concurrent enrollment in HEOC 100. [GE]

HEALTH CAREERS EXPLORATION

HEOC 102

2 Credits

22 hours of lecture

Exploring careers in health occupations including an overview of job opportunities in a variety of medical fields; professional interviews; guest speakers; individualized interest testing and information related to health career programs available at Clark College and the greater metropolitan area. [GE]

PHLEBOTOMY EDUCATION

HEOC 115

3 Credits

22 hours of lecture

22 hours of lab

Prepares student to perform skin and venipunctures, to obtain suitable laboratory specimens and to function as a member of the medical laboratory team. Includes laboratory practice. Prerequisite: BMED 110 and written consent of Health Occupations Advisor. [GE]

AIDS EDUCATION

HEOC 120

1 Credits

11 hours of lecture

A comprehensive look at AIDS, etiology, epidemiology, clinical manifestations, treatment, transmission, testing, legal, ethical and psychological issues. Fulfills Washington State Department of Licensing requirement for license renewal for persons governed by Chapter 18.130.RCW. [GE]

PHARMACOLOGY FOR HEALTH ASSISTANTS

HEOC 130

3 Credits

33 hours of lecture

Introduction to the basics of medication administration including trade and generic names of prescription and over-the-counter medications commonly prescribed, medication classifications, routes of administration, dosages, effects and implications and appropriate methods of documentation. Prerequisite: BIOL 164 (or 160) or HEOC 100, BMED 110, consent of Health Occupations or Business Technology Advisor. [GE]

LABORATORY PROCEDURES FOR THE MEDICAL OFFICE

HEOC 160

4 Credits

22 hours of lecture

44 hours of lab

Specimen collection and processing. Basic laboratory tests: blood count, microscopic urine tests; microbiology specimen handling (including gram smears and basic culture techniques) blood typing and prepared test kit use. Equipment use and maintenance. Re-agent storage and handling. Lab safety emphasized. Prerequisite: A grade of "C" or better in BTEC 163 or consent of the Health Occupation Advisor. [GE]

PHLEBOTOMY CLINICAL EXPERIENCE

HEOC 197

4 Credits

132 hours of clinical

Supervised phlebotomy experience in a health care facility. Provides students with the opportunity to apply knowledge and skill in performing clinical procedures and in developing professional attitudes for interacting with other professionals and consumers. Concurrent enrollment in HEOC 198 is required. Prerequisite: Completion of HEOC 115 with a grade of "B" or better and consent of Instructional Unit. [GE]

PHLEBOTOMY CLINICAL SEMINAR

HEOC 198

1 Credits

11 hours of lecture

Preparation for entry into the phlebotomy workplace. Includes discussion and practice focusing on professionalism, customer service, ethics, resume writing, and interviewing. Concurrent enrollment in HEOC 197 is required. Prerequisite: Completion of HEOC 115 with a grade of "B" or better and consent of Instructional Unit. [GE]

COOPERATIVE WORK EXPERIENCE

HEOC 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evalu-

ation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

SELECTED TOPICS

HEOC 280 1 - 5 Credits
55 hours of lecture

Selected topics in Health Occupations. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE]

SPECIAL PROJECTS

HEOC 290 1 - 15 Credits

Learning contract with the student to meet specialized needs of the individual. Credit based upon the type of learning activities planned. Credit not applicable toward a major at Clark College. Prerequisite: Consent of the Science and Health Sciences Dean. [GE]

History

WORLD CIVILIZATIONS I

HIST& 126 5 Credits
55 hours of lecture

The beginnings of civilization, c. 3500 B.C. to the High Middle Ages, c. 950 A.D. Areas to be covered include the ancient Near East, Egypt, India, China, Greece, Rome, and early medieval Europe. [SE, SS]

WORLD CIVILIZATIONS II

HIST& 127 5 Credits
55 hours of lecture

The High Middle Ages through the Late Middle Ages, the Renaissance and Reformation eras, the emergence of early modern society, witchcraft, the Enlightenment, the formation of nation-states and continued historical development in Europe, China, India, Africa, the Near East, plus Central and South America. [SE, SS]

WORLD CIVILIZATIONS III

HIST& 128 5 Credits
55 hours of lecture

The French Revolution through modern times. Incorporated into this framework are the political, military, economic, social, cultural and religious manifestations throughout the various regions of the world. [SE, SS]

UNITED STATES HISTORY I

HIST& 146 5 Credits
55 hours of lecture

Pre-Columbian era, colonial settlements and foundations of American institutions, seeds of revolution, Confederation and Constitution, federalism and states' rights, Jacksonian era. [SE, SS]

UNITED STATES HISTORY II

HIST& 147 5 Credits
55 hours of lecture

Antebellum reform, Manifest Destiny, roots of Southern secession, Civil War and Reconstruction, rise of big business and organized labor, immigration and assimilation, American Imperialism and Progressive reform movement. [SE, SS]

UNITED STATES HISTORY III

HIST& 148 5 Credits
55 hours of lecture

World War I, the Twenties, the Great Depression and the New Deal, World War II, the Cold War consensus, Vietnam and the Watergate era, and issues connected to the recent past. [SE, SS]

PACIFIC NORTHWEST HISTORY

HIST& 214

5 Credits

55 hours of lecture

Survey of the political, cultural, economic and social development of the Pacific Northwest with special emphasis on Washington State history. [SE]

WOMEN IN U.S. HISTORY

HIST& 215

5 Credits

55 hours of lecture

The role of women in America from the Native American women up to today. Included within these parameters will be women's contributions and status within the family, the economy, the religious communities, the legal and political systems, and the culture. [SE]

NATIVE AMERICAN HISTORY

HIST& 219

5 Credits

55 hours of lecture

A survey of Native American history from the pre-Columbian era to the Twentieth century. Topics include Indian cultures, treaty making and breaking, Indian patriots, and law and Indian rights. [SE]

EAST ASIAN HISTORY

HIST 221

5 Credits

55 hours of lecture

Survey of Far Eastern history from 1800 to the present. Primary emphasis will be placed on Far East - United States diplomacy and the emergence of the Far East in the modern world. [SE]

HISTORY OF GENOCIDE

HIST 231

3 Credits

33 hours of lecture

Examination of several incidences of genocide beginning with the extermination of the Herero of Namibia in the late 19th century; utilizing the definition of genocide developed by Raphael Lemkin and adopted by the United Nations; developing criteria for recognizing when and where genocide has occurred, based on reading and lectures; developing criteria to identify a genocide in the making; designing an action plan to extend the lessons of the course. [SE, SS]

WOMEN IN HIST - PREHISTORY THRU FALL OF ROME

HIST 251

3 Credits

33 hours of lecture

A survey of the role of women within the family, the economy and the culture from prehistory through the Middle Ages. Included within these parameters are the origins and development of patriarchy, misogyny and the view of female inferiority, women's contributions to Eastern, Middle Eastern, and Judeo/Christian religious experiences, and how women's lifecycles affected their status within society. [SE, SS]

WOMEN IN HIST - MIDDLE AGES THRU PRE-INDUST AGE

HIST 252

3 Credits

33 hours of lecture

An overview of the roles women experienced within the family, the economy, religion and culture from the Middle Ages, circa 500 A.D., through the Pre-Industrial Age. Women in the Far East, Africa, Latin and South America, the Middle East and Europe will be surveyed to compare and contrast their life styles. [SE, SS]

WOMEN IN HISTORY - INDUST AGE TO MODERN TIMES

HIST 253

3 Credits

33 hours of lecture

The role and influence of women within society from the Industrial Age to modern times. Some of the areas to be explored: women's contributions and status within the economy, the arts and literature, the various religions, and the political structures. Within these centuries occurred such events and movements where women were either influenced by or influential on the Scientific Revolution, the Enlightenment, various revolutions in the world,

beginning of Feminism, and the long debate and process of women's rights in voting, property ownership and areas of marriage and divorce. [SE, SS]

AFRICAN HISTORY

HIST 260 5 Credits
55 hours of lecture

Survey of the period from gathering/hunting societies through African independence, with focus on major events from an African perspective, including Africa's discovery of Europe, and resistance to colonialism. Prior completion of HIST& 126, 127, or 128 (or HIST 101, 102 or 103) recommended. [SE]

AFRICAN-AMERICAN HISTORY

HIST 275 5 Credits
55 hours of lecture

Survey of the history of the African-American experience from 1619 to the present. [SE]

SELECTED TOPICS

HIST 280 1 - 5 Credits
55 hours of lecture

Selected topics in History as listed in the quarterly class schedule. May be repeated for credit. [SE]

HISTORY OF LATIN AMERICA

HIST 285 5 Credits
55 hours of lecture

Survey of Latin American history, examining social, economic, political, cultural and intellectual trends and developments from ancient civilizations to the present Latin America in transition. [SE]

Human Development

EFFECTIVE STUDY

HDEV 098 2 Credits
22 hours of lecture

Learn effective study skills including goal setting, resource management, listening, note-taking, reading and test-taking skills. Appropriate for any student, particularly those working to improve basic skills and abilities necessary to move ahead to college level courses.

CAREER AND LIFE PLANNING

HDEV 100 3 Credits
33 hours of lecture

Examination of personal values, interests, personality preferences, skills and abilities for the purpose of determining career, educational and leisure activities. Introduction to career development theory, occupational information resources and decision-making strategies. Credit not allowed for both HDEV 100 and 101. [GE]

CAREER EXPLORATION

HDEV 101 2 Credits
22 hours of lecture

Strategies for career choice and change: utilizing career assessment tools, personal preferences, and occupational resources to make informed career and educational decisions. Credit not allowed for both HDEV 100 and 101. [GE]

COLLEGE ESSENTIALS: INTRODUCTION TO CLARK

HDEV 102 2 Credits
22 hours of lecture

Introduction to Clark College for new students, focusing on making a successful transition to college life. Topics include goal setting, personal management skills, developing an academic plan, developing cultural competencies and communication skills, career exploration and financial literacy, and an introduction to student resources at the college. [GE]

ANGER AND CONFLICT MANAGEMENT

HDEV 103

2 Credits

22 hours of lecture

Develop self-control and positive personal power. Learn about personal anger triggers, appropriate versus inappropriate anger, family dynamics, communication, assertiveness, and conflict management strategies. Learn to use anger instead of letting it use you! Does not fulfill any court-mandated anger management course requirement. [GE]

SELF-ESTEEM

HDEV 105

2 Credits

22 hours of lecture

Guided experience in self-motivation, values clarification, and empathetic regard for others. Structured small groups. [GE]

CULTURAL AND ACADEMIC FUNDAMENTALS

HDEV 111

2 Credits

22 hours of lecture

Cross-cultural training and orientation program for all new international students at Clark College whose first language is not English and who have little or no exposure to the America college environment. Emphasis on American cultural behaviors in education settings, including guest speakers and an opportunity to visit college classes. This course is required of students who have been admitted as international students and who have not attended a college or university in the United States. Prerequisite: Admission to Clark College as an international student or consent of International Programs Office. [GE]

COLLEGE SUCCESS

HDEV 117

3 Credits

33 hours of lecture

Strategies for successful student performance, including goal setting, academic planning, critical thinking and stress management. Focus on building effective academic skills of planning, memorizing, reading, note taking and test taking; identifying, utilizing, and evaluating campus resources and support services; fostering student responsibility for individual learning and behaviors promoting student achievement. College-level reading skills recommended. Credit not allowed for both HDEV 116 and HDEV 117. [GE]

PRACTICAL REASONING AND DECISION MAKING

HDEV 120

3 Credits

33 hours of lecture

Develop, analyze, evaluate and apply critical thinking to academic, career and personal pursuits. College level reading and eligibility for ENGL& 101 are strongly recommended. [GE]

RELATIONSHIPS

HDEV 123

2 Credits

22 hours of lecture

Strategies for strengthening relationships of all types. Designed to help participants explore relationship patterns and styles; information and skill building to facilitate more successful and satisfying relationships both personally and professionally.

ASSERTIVENESS

HDEV 155

3 Credits

33 hours of lecture

Teaches skills needed to achieve personal goals related to assertive behavior. Focuses on reducing emotional blocks and changing thoughts, feelings, and behavior to enable one to act in their own best interest and to express themselves in challenging situations without excessive anxiety or anger. Role play is used to demonstrate and practice skills. Recommended for both those who find it difficult to speak up and those who appear abrasive. [GE, HR]

INTRO TO SERVICE LEARNING & CIVIC ENGAGEMENT

HDEV 175

2 Credits

22 hours of lecture

The concept of service learning and its potential for inspiring civic engagement and community-based problem solving. Effective democratic citizenship demands awareness, knowledge, involvement, problem solving, and leadership. Through the development of a Community Action Project, we will explore all of these factors and their contributions to the development of democratic citizenship. Note: 10 hour service project requirement. [GE]

STRESS MANAGEMENT

HDEV 186

1 Credits

11 hours of lecture

Stress is an inevitable part of life affecting health, productivity, and relationships. Too little or too much stress can cause problems. Discover your unique reactions to stress and new options for handling stressful situations. [GE]

CAREER-RELATED WORKSHOP

HDEV 190

1 - 3 Credits

33 hours of lecture

Independent study in career exploration. Includes testing and course-work in self-assessment, and career research while consulting with a career counselor. One to three credits can be earned based upon the amount of course work completed. Students must have instructor permission to register after the fourth week of class. [GE]

WORKPLACE SUCCESS

HDEV 195

1 Credits

11 hours of lecture

Learn how to analyze your current work experiences to increase your success and potential for advancement. Gain knowledge specific to your work demands, develop transferable skills in human relations, information, and resource management. Satisfies the concurrent enrollment requirements for Co-op Work Experience. [GE]

PORTFOLIO DEVELOPMENT

HDEV 198

1 Credits

11 hours of lecture

A career/employment portfolio will be developed, including a career goals statement, qualifications brief, resume, work samples, recommendations and references. Learn to effectively use the portfolio to achieve employment goals. Satisfies the concurrent enrollment requirement for co-op work experience. [GE]

COOPERATIVE WORK EXPERIENCE

HDEV 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Concurrent enrollment in HDEV 195, 198 or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

PROFESSIONAL DEVELOPMENT

HDEV 200

2 Credits

22 hours of lecture

Job search strategies and techniques using the latest techniques and technologies, will be discussed and practiced, including preparing an electronic resume for the Internet, e-mail and computer scanner. Various methods to conduct your personalized labor market research, prepare effective cover letters, and how to secure informational or employment interviews will be learned. Guest speakers from local business and industry to speak about etiquette and ethics in the work place. May satisfy concurrent enrollment for Co-op Work Experience. [GE]

PRIOR LEARNING ASSESSMENT

HDEV 211

3 Credits

33 hours of lecture

Introduction to the process of preparing a portfolio that demonstrates and documents knowledge and skills equivalent to college-level learning acquired through other formal or informal learning methods, including work experience, community service, personal study, travel, or sponsored training. [GE]

SELECTED TOPICS

HDEV 280

1 - 3 Credits

33 hours of lecture

Variety of topics in human development as listed in the quarterly class schedule. May be repeated for credit. [GE]

Humanities

INTRO TO HUMANITIES

HUM& 101

5 Credits

55 hours of lecture

Interdisciplinary exploration of the human experience and expression, which travels through multiple time periods and cultures to investigate art, philosophy, religion, politics, literature, and what it means to be "human". [HA, SE]

INTRODUCTION TO CINEMA

HUM 152

3 Credits

22 hours of lecture

22 hours of lab

Introductory course on the study of Film history, production techniques, aesthetics and social impact of the American film industry from early 1900's to present. [HA, SE]

BIOETHICS

HUM 180

3 Credits

33 hours of lecture

A study of biological science and ethics. Ethical principles and theories are used in solving bioethical dilemmas. Concepts studied include genetic engineering, inherited disorders, cloning, physician assisted suicide, allocation of health resources, organ donation, and environmental ethics. Credit not allowed for both BIOL 180 and HUM 180. [HA, NS, SE]

INTRO TO GAY, LESBIAN, BISEXUAL & TRANS STUD

HUM 210

5 Credits

55 hours of lecture

An interdisciplinary survey of lesbian, gay, bisexual, and trans issues in the sciences, social sciences, and humanities with an emphasis on the period from 1900 to the present in the United States. Introduction to the most compelling and problematic aspects of modern cultural representation of and discourse on sexual and gender identity. Prerequisite: College level reading and writing recommended. [HA, SE, SS]

SELECTED TOPICS

HUM 280

1 - 5 Credits

55 hours of lecture

Selected topics in Humanities. Topics vary and course theme and content change to reflect new topics. This course may be repeated for credit. Specific topics are listed in the quarterly class schedule. [SE]

SPECIAL PROJECTS

HUM 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Industrial Technology - Electricity

BASIC NATIONAL ELECTRICAL CODE

ITEL 071

3 Credits

33 hours of lecture

Fundamentals of the electric code. Use of the code book and its application to dwellings, industry and commerce.

BASIC NATIONAL ELECTRICAL CODE

ITEL 072 3 Credits
33 hours of lecture
Continuation of ITEL 071. Use of the code book and its application to dwellings, industry, and commerce. Emphasis on NEC Articles 250 and 220.

BASIC NATIONAL ELECTRICAL CODE

ITEL 073 3 Credits
33 hours of lecture
Continuation of ITEL 072. Use of the code book and its application to dwellings, industry, and commerce. Emphasis on NEC Articles 220 and 430. Prerequisite: ITEL 072 or consent of Instructional Unit.

BASIC DC ELECTRICITY

ITEL 131 6 Credits
44 hours of lecture 44 hours of lab
Fundamentals of DC circuits, DC instruments, batteries and application mathematics needed to complete assignments. Prerequisite: MATH 090 or consent of Instructional Unit. [GE]

BASIC AC ELECTRICITY

ITEL 132 6 Credits
44 hours of lecture 44 hours of lab
Fundamentals of AC circuits, AC instruments, batteries and application mathematics needed to complete assignments. Prerequisite: ITEL 131. [GE]

DIGITAL ELECTRONICS

ITEL 133 5 Credits
44 hours of lecture 22 hours of lab
Applications of binary numbers and Boolean Algebra as related to combinational and sequential logic circuits employing logic gates, flip flops, counters, shift registers, encoders and decoders, multiplexers, displays, A/D and D/A converters. Prerequisite: ITEL 132 or consent of Instructional Unit. [GE]

ELECTRIC MOTORS AND CONTROLS

ITEL 141 5 Credits
44 hours of lecture 22 hours of lab
Fundamentals of modern industrial electric motor control devices including magnetic starters, overload protection devices, solid state devices, applications and troubleshooting. Prerequisite: ITEL 132 or consent of Instructional Unit. [GE]

BASIC SEMICONDUCTOR DEVICES

ITEL 142 5 Credits
44 hours of lecture 22 hours of lab
Fundamentals of solid state electronics including semiconductor devices, applications and troubleshooting. Prerequisite: ITEL 132 or consent of Instructional Unit. [GE]

INDUSTRIAL ELECTRONICS

ITEL 143 5 Credits
44 hours of lecture 22 hours of lab
Characteristics and applications of solid state devices used in industrial control circuits. Prerequisite: ITEL 142 or consent of Instructional Unit. [GE]

HIGH VOLTAGE SYSTEMS

ITEL 171 3 Credits
33 hours of lecture
Three phases and single phase distribution systems will be presented with special consideration for high voltage systems and sub-station application. [GE]

SPECIAL PROJECTS

ITEL 290

1 - 3 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Japanese

JAPANESE I

JAPN& 121

5 Credits

55 hours of lecture

Primary emphasis on oral communication with additional practice in basic reading and writing. Not open to native speakers except with instructor's permission. [HA, SE]

JAPANESE II

JAPN& 122

5 Credits

55 hours of lecture

Continuation of JAPN& 121. Not open to native speakers except with instructor's permission. Completion of JAPN& 121 or equivalent required. [HA, SE]

JAPANESE III

JAPN& 123

5 Credits

55 hours of lecture

Continuation of JAPN& 122. Not open to native speakers except with instructor's permission. Completion of JAPN& 122 or equivalent required. [HA, SE]

STUDY ABROAD ORIENTATION

JAPN 150

1 Credits

11 hours of lecture

Preparing students to travel with the Clark College study abroad program in Japan. Successful completion of this course required for students to participate in the travel abroad program. Application and acceptance into the study abroad program also required. Prerequisite: A grade of "C" or better or concurrent enrollment in JAPN& 122 or above; or consent of Instructional Unit. [SE]

JAPANESE READING AND WRITING

JAPN 151

1 Credits

11 hours of lecture

Reading and writing about various themes and topics in Japanese and English. Focus on manga, short literature, Japanese cultural readings, and letters from Japan. Instruction in English. No prior Japanese experience necessary. [SE]

JAPANESE READING AND WRITING

JAPN 152

1 Credits

11 hours of lecture

Continuation of reading and writing about various themes and topics in Japanese and English. Focus on manga, short literature, Japanese cultural readings, and letters from Japan. Instruction in English. No prior experience in Japanese necessary. Prerequisite: A grade of "C" or better in JAPN 151. [SE]

JAPANESE READING AND WRITING

JAPN 153

1 Credits

11 hours of lecture

Continuation of reading and writing about various themes and topics in Japanese and English. Focus on manga, short literature, Japanese cultural readings, and letters from Japan. Instruction in English. No prior experience in Japanese necessary. Prerequisite: A grade of "C" or better in JAPN 152. [SE]

JAPANESE SOCIETY

JAPN 171

3 Credits

33 hours of lecture

Structure of Japanese society and organizations. Emphasis on social obligation in the nature of one's relations to others. [SE]

SELECTED TOPICS

JAPN 280

1 - 5 Credits

55 hours of lecture

Course focuses on selected topics in German. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

Journalism

INTRODUCTION TO JOURNALISM

JOUR 101

5 Credits

55 hours of lecture

Introduction to skills fundamental to journalism and newswriting, as well as an understanding of the role and significance of journalists and their work. Topics include the evolution in media and news today, ethical challenges, shifts in audience involvement and technological advances. Writing-intensive activities to master a clear, concise, accurate style. Prerequisite: ENGL& 101 (or ENGL 101) eligibility required. [HA, SE]

MULTIMEDIA NEWS REPORTING AND WRITING

JOUR 111

5 Credits

55 hours of lecture

Writing-intensive instruction and training in both writing and reporting online news as well as an introduction to and practice in the use of online news delivery tools, including web text packages, blogs, audio reports and video reports and their respective computer editing software programs. Emphasis on ethical issues. Considerable hands-on work with video and audio equipment. Focus on independent in-class work requiring high motivation to work independently as well as collaboratively with classmates and instructor. Concurrent enrollment or completion of JOUR 121 or a subsequent College Newspaper course is recommended. Prerequisite: A grade of "C" or better in JOUR 101, or consent of the Instructional Unit.

COLLEGE NEWSPAPER

JOUR 121

1 - 3 Credits

33 hours of lecture

Real-world opportunity to practice skills and expand knowledge acquired in JOUR 101. Topics include reporting, writing, editing and producing *The Independent*, print and online versions. Focus on an understanding of and appreciation for accuracy, deadlines, and teamwork. Activities include lecture, lessons, quizzes and out-of-class reporting and writing assignments. Prerequisite: A grade of "C" or better in JOUR 101, or equivalent, or consent of Instructional Unit. [GE]

COLLEGE NEWSPAPER

JOUR 122

1 - 3 Credits

33 hours of lecture

Real-world opportunity to practice skills and expand knowledge acquired in JOUR 101. Topics include reporting, writing, editing and producing *The Independent*, print and online versions. Focus on an understanding of and appreciation for accuracy, deadlines and teamwork. Activities include lecture, lessons, quizzes and out-of-class reporting and writing assignments. Prerequisite: JOUR 121. [GE]

COLLEGE NEWSPAPER

JOUR 123

1 - 3 Credits

33 hours of lecture

Real-world opportunity to practice skills and expand knowledge acquired in JOUR 101. Topics include reporting, writing, editing and producing *The Independent*, print and online versions. Focus on an understanding of and

appreciation for accuracy, deadlines, and teamwork. Activities include lecture, lessons, quizzes and out-of-class reporting and writing assignments. Prerequisite: JOUR 122. [GE]

COOPERATIVE WORK EXPERIENCE

JOUR 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in newspaper or other journalism position. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

ADVANCED NEWSWRITING

JOUR 201

3 Credits

33 hours of lecture

Continuation of JOUR 101. Focus on longer, more complex stories, including features and opinion writing. Students will complete a short research project. Prerequisite: JOUR 101. [GE]

COLLEGE NEWSPAPER

JOUR 221

1 - 3 Credits

33 hours of lecture

Real-world opportunity to practice skills and expand knowledge acquired in JOUR 101. Topics include reporting, writing, editing and producing *The Independent*, print and online versions. Focus on an understanding of and appreciation for accuracy, deadlines, and teamwork. Activities include lecture, lessons, quizzes and out-of-class reporting and writing assignments. Prerequisite: JOUR 123. [GE]

COLLEGE NEWSPAPER

JOUR 222

1 - 3 Credits

33 hours of lecture

Real-world opportunity to practice skills and expand knowledge acquired in JOUR 101. Topics include reporting, writing, editing and producing *The Independent*, print and online versions. Focus on an understanding of and appreciation for accuracy, deadlines, and teamwork. Activities include lecture, lessons, quizzes and out-of-class reporting and writing assignments. Prerequisite: JOUR 221. [GE]

COLLEGE NEWSPAPER

JOUR 223

1 - 3 Credits

33 hours of lecture

Real-world opportunity to practice skills and expand knowledge acquired in JOUR 101. Topics include reporting, writing, editing and producing *The Independent*, print and online versions. Focus on an understanding of and appreciation for accuracy, deadlines, and teamwork. Activities include lecture, lessons, quizzes and out-of-class reporting and writing assignments. Prerequisite: JOUR 222. [GE]

NEWS EDITING

JOUR 272

3 Credits

33 hours of lecture

Basic editing skills. Emphasis on proofreading, clarity, trimming headlines. Basic modular layout, editor responsibilities and Associated Press Style. Prerequisite: ENGL 135 (or ENGL 111) or JOUR 101. [GE]

SPECIAL PROJECTS

JOUR 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Library

RESEARCH IN THE INFORMATION AGE

LIBR 105

1 - 3 Credits

33 hours of lecture

Survey of information research techniques. Students will learn to locate, analyze, and evaluate information. Students will develop search strategies and use a variety of information, resources including the Internet and other computerized tools. Repeatable up to 3 credits. Prerequisite: Eligibility for ENGL& 101 (or ENGL 101) or consent of Department. [GE]

INTERNET RESEARCH AND LIVING ONLINE

LIBR 115

2 Credits

22 hours of lecture

Introduction to global networking and the Internet from the student users' perspective, emphasizing basic skills required to do research and participate as members of the Internet community. Topics include network fundamentals, strategies for locating, analyzing and evaluating information, electronic mail, Internet-based communities, social, legal and ethical issues regarding Internet interactions. [GE]

SELECTED TOPICS

LIBR 280

1 - 6 Credits

66 hours of lecture

Course focuses on selected topics in library information research. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics.

Machining Technology

BASIC GENERAL MACHINING PROCESSES

MACH 111

5 Credits

22 hours of lecture

66 hours of lab

Instruction and practical application in general shop safety, safe practices and dangers of a machine shop environment. Demonstrations of proper use of micrometers and measurement tools. Procedures for deburring parts. Types of drill bits and their uses. Drill bit sharpening. Use of bandsaws and bandsaw blade welders. [GE]

BASIC ENGINE LATHE PROCESSES I

MACH 112

5 Credits

22 hours of lecture

66 hours of lab

Instruction and practical application of engine lathe nomenclature and safety. Calculate speeds and feeds for use with an engine lathe. Setup and operation of engine lathe for the basic operations of turning, facing and drilling. Prerequisite: A grade of "C" or better in MACH 111 or concurrent enrollment in MACH 111. [GE]

BASIC VERTICAL MILLING PROCESSES I

MACH 113

5 Credits

22 hours of lecture

66 hours of lab

Instruction and practical application using nomenclature and safety for the vertical mill. Setup indicators and edge finders. Operations to include squaring of a work piece, drilling and reaming holes in various materials. Prerequisite: A grade of "C" or better in MACH 111 or concurrent enrollment in MACH 111. [GE]

BASIC SURFACE GRINDER PROCESSES I

MACH 121

5 Credits

22 hours of lecture

66 hours of lab

Instruction and practice to safely use the surface grinders. Instruction of nomenclature for surface grinders. The use and care of handtools for inspection and setup of the surface grinder. Identify and safely use grinding wheels. Setup workpiece and grind material parallel. Prerequisite: MACH 111. [GE]

BASIC ENGINE LATHE PROCESSES II

MACH 122 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practice to use engine lathe for turning material both concentric and straight, creating square shoulders, and facing a part. Drilling with the tailstock. Cutting external UNF and UNC threads. The use and care of taps. Prerequisite: MACH 111 and MACH 112. [GE]

BASIC VERTICAL MILLING PROCESSES II

MACH 123 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application using the vertical mill for drilling procedures, squaring of a workpiece, and reaming operations. Practice in machine setups to complete these operations. Prerequisite: MACH 111 and MACH 113. [GE]

BASIC SURFACE GRINDER PROCESSES II

MACH 131 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application using the surface grinder to grind a workpiece flat and parallel, setup and operation to dress various shapes on grinding wheels. Prerequisite: MACH 111 and MACH 121. [GE]

BASIC ENGINE LATHE PROCESSES III

MACH 132 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application using the engine lathe with four jaw chucks, cutting multiple start and acme threads. Use of formulas and different methods for cutting tapers. Prerequisite: MACH 111, MACH 112 and MACH 122. [GE]

BASIC VERTICAL MILLING PROCESSES III

MACH 133 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application using the vertical milling machine with an indexing head. Application of form cutting tools, keyway cutters, and face milling. Prerequisite: MACH 111, MACH 113 and MACH 123 [GE]

COOPERATIVE WORK EXPERIENCE

MACH 199 1 - 5 Credits
165 hours of clinical
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

ADVANCED SURFACE GRINDER PROCESSES III

MACH 211 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application for the surface grinder using angle blocks and plates for grinding edges and vertical surfaces. Prerequisite: MACH 111, MACH 121, and MACH 131. [GE]

ADVANCED ENGINE LATHE PROCESSES IV

MACH 212 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application of advanced engine lathe processes. Cutting of long workpieces using steady rests and follow rests. Prerequisite: MACH 111, MACH 112, MACH 122 and MACH 132. [GE]

ADVANCED CNC MILLING SETUP AND OPERATION

MACH 213 5 Credits
22 hours of lecture 66 hours of lab
Setup and operation of the Haas vertical mill. Creating and editing numerical control programs for Haas vertical mill. Prerequisite: MACH 111. [GE]

SURFACE GRINDER AND PROCESSES II

MACH 221 5 Credits
22 hours of lecture 66 hours of lab
Using the surface grinder to produce angles and shapes with sine vises, angle plates and fixtures. Prerequisite: MACH 111, 121, 131, and 211. [GE]

CNC LATHE SETUP AND OPERATION

MACH 222 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application for the safe setup and operation of Okkuma CNC lathe. Produce and edit NC programs on the CNC lathe. Prerequisite: MACH 111. [GE]

CNC MILL MASTER CAM PROGRAMMING AND MACHINING

MACH 223 5 Credits
22 hours of lecture 66 hours of lab
Use cam software (Mastercam) to produce CNC programs for Haas vertical mill using 2-D and 3-D geometry. Prerequisite: MACH 111 or consent of Instructional Unit. [GE]

ADVANCED MACHINING TECHNOLOGY PROCESSES

MACH 226 10 Credits
55 hours of lecture 110 hours of lab
Individual projects. Three to five industrial tours. Concurrent enrollment in MACH 225 required. Prerequisite: MACH 224 or consent of Instructional Unit. [GE]

ADVANCED EDM PROCESSES

MACH 231 5 Credits
22 hours of lecture 66 hours of lab
Instruction and practical application for setup and operation of the electrical discharge machine using overburn charts. Using manufacturer's charts to determine electrode material. Prerequisite: MACH 111. [GE]

ADVANCED CNC LATHE PROGRAMMING

MACH 232 5 Credits
22 hours of lecture 66 hours of lab
Advanced CAM programming using Mastercam to produce CNC programs for Okkuma CNC lathe. Prerequisite: MACH 111 and MACH 222. [GE]

ADVANCED MILLING 3D PROGRAMMING & MACHINING

MACH 233 5 Credits
22 hours of lecture 66 hours of lab
Advanced CAM programming for the vertical mill using Mastercam to produce CNC programs by using solids and surfaces. Prerequisite: MACH 111 and MACH 222. [GE]

ELEMENTARY METALLURGY

MACH 235 2 Credits
22 hours of lecture
Introduction to physical metallurgy, oriented towards the machinist trade. Covers destructive and non-destructive testing, steel manufacturing and its classification, identification methods, alloy steel, cast and wrought iron, heat treating. Concurrent enrollment in MACH 236 required. Cannot receive credit for MTEC 235 and WELD 235 and MACH 235. [GE]

ELEMENTARY METALLURGY LAB

MACH 236 2 Credits
44 hours of lab
Application of concepts and topics covered in MACH 235, including metallography, heat treatment, and testing of materials. Concurrent enrollment in MACH 235 required. Cannot receive credit for MTEC 236 and WELD 236 and MACH 236. [GE]

SELECTED TOPICS

MACH 280

1 - 5 Credits

55 hours of lecture

Selected topics in Machining as listed in the quarterly class schedule. Repeatable for credit. Prerequisite: Consent of Instructional Unit. [GE]

SPECIAL PROJECTS

MACH 290

1 - 6 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Management

THE BUSINESS ENVIRONMENT

MGMT 100

5 Credits

55 hours of lecture

Overview of the business organization, including management, operations, marketing, finance and law. Topics include essential business concepts and the role of business in modern society; responding to the changing business environment, the unique challenges of small business, managing human and physical resources, and competing in a global economy. Credit not allowed for BUS& 101, BUS 101 and MGMT 100. [GE]

PRINCIPLES OF MANAGEMENT

MGMT 101

3 Credits

33 hours of lecture

Introduction to management theory, functions, and topics to include diversity, leading change, decision making, and team work. Focus on practical applications, useful to both new and experienced managers. [GE]

APPLIED MANAGEMENT SKILLS

MGMT 103

3 Credits

33 hours of lecture

Developing concepts and skills in employee motivation, communication, and supervisory leadership. Promoting effective relations and performance in the work group. Case discussions and role situations develop understanding of individual and group problems encountered by the supervisor. [GE]

MOTIVATION AND PERFORMANCE

MGMT 106

3 Credits

33 hours of lecture

Review of motivational factors of human relations used to enhance motivation and interpersonal communications; focus on the ways motivation impacts the success or failure of organizations. [GE]

SUPERVISORY COMMUNICATION I, WRITTEN

MGMT 107

3 Credits

33 hours of lecture

Review of writing mechanics covering grammar, punctuation, and sentence and paragraph structure. Students practice writing effective business letters, documentation, supervisory reports, office memoranda, and bulletins. [GE]

CREATIVE PROBLEM SOLVING

MGMT 110

3 Credits

33 hours of lecture

Review of the creative and analytical thinking necessary for effective problem-solving in the workplace. Concepts include left/right brain thinking, stages in the creative process, habits that hinder thinking and producing ideas, the role of criticism, and effective communication of solutions. [GE]

CONFLICT MANAGEMENT

MGMT 112

2 Credits

22 hours of lecture

Study of the factors causing conflicts and ways to resolve them. Conflict with individuals and groups, conflict management styles, and win-win situations. [GE]

HUMOR IN THE WORKPLACE

MGMT 113

1 Credits

11 hours of lecture

Study of the importance of laughter and humor in the workplace to build human connections, improve individual and corporate health, kindle creativity, and establish a positive work environment. [GE]

SUPERVISOR AS A TRAINER COACH

MGMT 120

3 Credits

33 hours of lecture

Study of the supervisor's role in the training and professional of employees. Topics include identifying training needs, selecting the appropriate type of training, distinguishing between training and coaching situations, and supporting employees to improve performance. Activities include practical training and coaching techniques. [GE]

LEADERSHIP PRINCIPLES

MGMT 122

3 Credits

33 hours of lecture

Developing practical leadership skills to influence the organizational performance for managers and non-managers. Topics include leadership roles and styles; the communication process; team building and group interactions; and organizational politics, power, and influence. Applications include leading in business, not-for-profit organizations, clubs, and social organizations. [GE]

TEAM BUILDING AND GROUP BEHAVIOR

MGMT 125

3 Credits

33 hours of lecture

Methods for creating, developing, and nurturing work groups and teams in the workplace to achieve organizational objectives. Focus on the effective roles of the supervisor and team members. Topics include group behavior for problem-solving, group learning, conflict resolution, and team interactions and communications. [GE]

PROJECT MANAGEMENT

MGMT 126

4 Credits

44 hours of lecture

Introduction to current practices in successful project management and in creating a quality project plan. Case examples provide the opportunity for first-hand practice in developing the individual steps of a project cycle, using current software in project management. [GE]

HUMAN RESOURCES MANAGEMENT

MGMT 128

3 Credits

33 hours of lecture

Developing an understanding of the functions and skills needed by supervisors concerning employment recruitment, selection and placement, staff planning and development, job descriptions and analysis, promotions, transfers, separations, wage and salary administration, and EEO requirements. [GE]

LEGAL ISSUES IN EMPLOYEE RELATIONS

MGMT 132

3 Credits

33 hours of lecture

Study of human resource topics such as employment law, hiring, discrimination, employment-at-will, drug testing, health insurance, unemployment, worker's compensation, wages and hours; and civil rights. Focus on due process for both public and private employees, including labor relations and collective bargaining. [GE]

PRODUCTION AND OPERATIONS MANAGEMENT

MGMT 133

3 Credits

33 hours of lecture

Techniques for improving productivity and quality and reducing waste. Topics include measuring quality and productivity, process definition and control, problem-solving, continuous improvement, and personal productivity for the production and service environment. [GE]

COOPERATIVE WORK EXPERIENCE

MGMT 199

1 - 5 Credits

165 hours of clinical

Up to 5 credits for supervised work training in an approved job. Completion of or concurrent enrollment in BTEC 147 or HDEV 195, 198, or 200 required. Prerequisite: Completion of one class with a "C" or better in Business, Economics, or Management. Written consent of Instructional Unit. [GE]

SELECTED TOPICS

MGMT 280

1 - 5 Credits

55 hours of lecture

Varying topics in supervisory management, as listed in the quarterly class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS

MGMT 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Mathematics

PRE-ALGEBRA

MATH 030

5 Credits

55 hours of lecture

An introduction to algebra, solving equations, the integers, fractions, decimals, ratios, proportions, percents, basic geometry, and measurement. Prerequisite: A grade of "C" or better in DVED 023 or recommending score on placement test.

FUNDAMENTALS OF BUSINESS MATHEMATICS

MATH 065

5 Credits

55 hours of lecture

Application of mathematics to common business situations. Emphasis is on practical applications and problem-solving skills for the business professional as well as the consumer and investor. Prerequisite: A grade of "C" or better in DVED 023 or recommending score on placement test or consent of Instructional Unit.

INDUSTRIAL MATHEMATICS

MATH 085

5 Credits

55 hours of lecture

Mathematical calculations used in industry. Determining ratio and proportion, taper calculations, weights and measures, areas and volumes, circles, angles, triangles, percentages, and metric conversions. Prerequisite: A grade of "C" or better in DVED 023 or recommending score on placement test or consent of Instructional Unit.

ALGEBRA I

MATH 089

5 Credits

55 hours of lecture

Numeric and algebraic expressions, linear equations and inequalities, the coordinate plane, functions, lines. Prerequisite: A grade of "C" or better in MATH 030 or recommending score on placement test.

ELEMENTARY ALGEBRA

MATH 090

5 Credits

55 hours of lecture

Numeric and algebraic expressions, linear equations and inequalities, the coordinate plane, functions, lines, systems of linear equations, integer exponents, polynomials. Designed for the student who is prepared to take algebra at an accelerated pace. Prerequisite: A grade of "C" or better in MATH 030 or recommending score on placement test.

ALGEBRA II

MATH 091

5 Credits

55 hours of lecture

A continuation of MATH 089. Systems of linear equations, integer exponents, polynomials, factoring, rational expressions. Prerequisite: A grade of "C" or better in MATH 089 or MATH 090 or eligibility for MATH 095.

ALGEBRA III

MATH 093

5 Credits

55 hours of lecture

A continuation of MATH 091. Radical expressions, rational exponents, quadratic equations, exponential and logarithmic functions. Prerequisite: A grade of "C" or better in MATH 091.

INTERMEDIATE ALGEBRA

MATH 095

5 Credits

55 hours of lecture

A continuation of MATH 090. Factoring, rational expressions, radical expressions, rational exponents, quadratic equations, exponential and logarithmic functions. Designed for the student who is prepared to take algebra at an accelerated pace. Prerequisite: A grade of "C" or better in MATH 090 or recommending score on placement test.

TECHNICAL MATHEMATICS I

MATH 098

3 Credits

33 hours of lecture

Calculations with fractions, decimals, percents, powers, roots and signed numbers; systems of measurement; precision and accuracy; scientific and engineering notation; solution of linear equations; manipulation of formulas and algebraic fractions; right triangle trigonometry; use of graphing calculator. Prerequisite: A grade of "C" or better in MATH 090 or MATH 091, or recommending score on placement test.

TECHNICAL MATHEMATICS II

MATH 099

3 Credits

33 hours of lecture

Graphs of linear and non-linear functions; variation; systems of equations; unit circle trigonometry; vectors and phasors; complex numbers; exponential and logarithmic functions; use of graphing calculator. Prerequisite: A grade of "C" or better in MATH 098.

COLLEGE TRIGONOMETRY

MATH 103

5 Credits

55 hours of lecture

Trigonometric ratios, right angle trigonometry, law of sines, law of cosines, radian measure, trigonometric identities, inverse trigonometric functions, trigonometric equations, graphs of trigonometric functions, polar coordinates, and two-dimensional vectors. Prerequisite: A grade of "C" or better in MATH 093, or 095, or recommending score on placement test. [Q, SE]

FINITE MATHEMATICS

MATH 105

5 Credits

55 hours of lecture

Lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. Prerequisite: A grade of "C" or better in MATH 093 or 095, or recommending score on placement test. [Q, SE]

MATH IN SOCIETY

MATH& 107

5 Credits

55 hours of lecture

Philosophy of mathematics and concepts of numerical relationships. Mathematical systems, logic, set theory, inductive and deductive reasoning, scientific attitudes, elementary properties of mathematics. Geometry and history of mathematics will be covered as time allows. For students who do not plan to take more mathematics. One field trip may be required. Prerequisite: A grade of "C" or better in MATH 093 or 095, or recommending score on placement test. [Q, SE]

COLLEGE ALGEBRA

MATH 111

5 Credits

55 hours of lecture

An introduction to functions from symbolic, numerical, and graphical points of view. Topics include polynomial; logarithmic, and exponential functions; inequalities, absolute value equations and inequalities, systems of equations, conic sections, and mathematical modeling. This is a challenging and technical course primarily intended for those majoring in Mathematics, Physical Science or Engineering. It is a preparatory class for the four-term Calculus series. Prerequisite: A grade of "C" or better in MATH 093 or 095, or recommending score on placement test. [Q, SE]

MATH FOR ELEMENTARY TEACHERS

MATH 122

5 Credits

55 hours of lecture

The first of a three-quarter sequence of courses designed for prospective elementary school teachers. Focus on problem solving, set theory, numeration systems, whole number arithmetic, and fractions. Prerequisite: A grade of "C" or better in MATH 093 or MATH 095, or recommending score on placement test. [Q, SE]

MATH FOR ELEMENTARY TEACHERS

MATH 123

5 Credits

55 hours of lecture

The second of a three-quarter sequence of courses designed for prospective elementary school teachers. Focus on geometric shapes, measurement, triangle congruence and similarity, coordinate geometry, transformations, trigonometry and geometric problem solving. May be taken concurrently with MATH 124, the third course in the sequence. Prerequisite: A grade of "C" or better in MATH 122. [[Q, SE]

MATH FOR ELEMENTARY TEACHERS

MATH 124

5 Credits

55 hours of lecture

The third of a three-quarter sequence of courses designed for prospective elementary school teachers. Focus on integers, decimals, number theory; elementary statistics, combinatorics and probability; functions and their graphs. Study of data analysis and probability including problem solving techniques and concepts in algebra. May be taken concurrently with MATH 123, the second course in the sequence. Prerequisite: A grade of "C" or better in MATH 122. [Q, SE]

MODELING ENERGY DYNAMICS IN EVERYDAY LIFE

MATH 135

3 Credits

33 hours of lecture

Introduction to models of energy dynamics. Students will develop and interpret models of annual energy use and cost using real data related to home lighting, home heating and food consumption. Models will be used to analyze cost/benefit of alternatives. Credit not allowed for both MATH 135 and ENSC 135. Completion of BIOL& 101 recommended. Prerequisite: A grade of "C" or better in MATH 093 or 095, or recommending score on placement test. [Q, NS, SE]

CALCULUS FOR LIFE SCIENCES

MATH 140

6 Credits

66 hours of lecture

Survey of differentiation and integration with applications to problems in Biology and Environmental Science.

Prerequisite: A grade of “C” or better in MATH 103 and 111, or recommending score on placement test. Please see advisor for transferability. [Q, SE]

BUSINESS CALCULUS

MATH& 148

5 Credits

55 hours of lecture

Introductory calculus with applications for business, life sciences, and social sciences. Differential, integral, and elementary multivariate calculus. Credit allowed for only one of MATH 140, MATH 106 and MATH& 148.

Prerequisite: A grade of “C” or better in MATH 105 or 111 or recommending score on placement test. [Q, SE]

CALCULUS I

MATH& 151

5 Credits

55 hours of lecture

The first course in the four quarter calculus sequence: this sequence is intended primarily for students of Mathematics, the Physical Sciences, or Engineering. This course covers the foundations of calculus of a single variable: limits, differentiation, applications of differentiation to properties of functions: their graphs, solving real-world problems, and the basics of integration. Credit not allowed for both MATH 113 and MATH& 151. Prerequisite: A grade of “C” or better in MATH 103 and 111, or recommending score on placement test. [Q, SE]

CALCULUS II

MATH& 152

5 Credits

55 hours of lecture

Second course in the four quarter calculus sequence intended primarily for students of Mathematics, the Physical Sciences, or Engineering. focus on advanced integration techniques and applications of integration to real-world problems. Topics include differentiation and integration into topics in plane geometry: conics, parametric equations, polar coordinates and polar equations. Prerequisite: A grade of “C” or better in MATH& 151 (MATH 113). [Q, SE]

CALCULUS III

MATH& 153

5 Credits

55 hours of lecture

Third course in the four quarter calculus sequence intended for students of Mathematics, the Physical Sciences, or Engineering. Focus on sequences and series and their applications: topics include two- and three- dimensional geometry: vectors and their applications, lines, planes, cylindrical and spherical coordinates: also vector-valued functions, their derivatives and integrals, and their applications to real world motion. Credit not allowed for both MATH 212 and MATH& 153. Prerequisite: A grade of “C” or better in MATH& 152 (MATH 211). [Q, SE]

COOPERATIVE WORK EXPERIENCE

MATH 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

DESCRIPTIVE STATISTICS

MATH 203

3 Credits

33 hours of lecture

Descriptive methods, probability, binomial and normal probability distributions are included among other statistical topics with applications to fields of science, engineering, business, social science, and education. Credit allowed for only one of MATH 203 or BUS 203. Prerequisite: A grade of “C” or better in MATH 093 or 095, or recommending score on placement test. [Q, SE]

INFERENCE STATISTICS

MATH 204

3 Credits

33 hours of lecture

Estimation of parameters, tests of hypotheses, regression analysis, nonparametric statistics and analysis of variance

are included in this continuation of MATH 203. Applications in science, engineering, business, social science and education. Credit allowed for only one of MATH 204 or BUS 204. Prerequisite: A grade of “C” or better in MATH 203 or BUS 203. [Q, SE]

DISCRETE MATHEMATICS

MATH 205

5 Credits

55 hours of lecture

Study of finite systems. Topics chosen from set theory, logic, relations, combinatorics, number systems, algorithms, graph theory, and automata. Credit not allowed for both MATH 205 and MATH 206. Prerequisite: A grade of “C” or better in MATH 111 or recommending score on placement test. [Q, SE]

LINEAR ALGEBRA

MATH 215

5 Credits

55 hours of lecture

An introduction to Linear Algebra. This course is intended primarily for students of Mathematics, the Physical Sciences, or Engineering. Topics include systems of linear equations, matrices, linear transformations, vectors, vector spaces, eigenvalues, and orthogonality. Applications will also be explored. Credit not allowed for both MATH 215 and MATH 216. Prerequisite: A grade of “C” or better in MATH& 152 (MATH 211). [Q, SE]

DIFFERENTIAL EQUATIONS

MATH 221

5 Credits

55 hours of lecture

Elementary theory and applications of ordinary differential equations. Linear equations, linear systems, Laplace transforms, boundary value problems, series and iterative methods. Credit not allowed for both MATH 221 and MATH 241. Prerequisite: Concurrent enrollment in MATH& 254 (MATH 213) or a grade of “C” or better in MATH& 254 (MATH 213). [Q, SE]

CALCULUS IV

MATH& 254

5 Credits

55 hours of lecture

Fourth course in the four quarter calculus sequence intended primarily for students of Mathematics, the Physical Sciences, or Engineering. Focus on the calculus of functions of several variables: limits, partial derivatives, iterated integrals and applications of these topics; and topics in vector calculus: vector fields, gradient, divergence and curl, line and surface integrals, and classic vector calculus theorems. Credit not allowed for both MATH 213 and MATH& 254. Prerequisite: A grade of “C” or better in MATH& 153 (or MATH 212). [Q, SE]

SELECTED TOPICS

MATH 280

1 - 5 Credits

55 hours of lecture

Selected topics in mathematics. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the quarterly class schedules. [SE]

SPECIAL PROJECTS

MATH 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Mechatronics

BASIC MEASUREMENT TOOLS

MTX 103

2 Credits

11 hours of lecture

22 hours of lab

Fundamentals of measurement tools. Topics include basic measurement, S.I. and U.S. customary measurement, precision measurement tools and dimensional gauging. Prerequisite: A grade of “C” or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

BASIC HYDRAULICS

MTX 105

2 Credits

11 hours of lecture

22 hours of lab

Fundamentals of hydraulics. Topics include hydraulic power systems, hydraulic circuits, principles of hydraulic pressure and flow and various types of hydraulic valves. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

BASIC PNEUMATICS

MTX 107

2 Credits

11 hours of lecture

22 hours of lab

Fundamentals of pneumatics. Topics include pneumatic power systems, basic pneumatic circuits principles of pneumatic pressure and flow and pneumatic speed control. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

ELECTRIC MOTOR CONTROL 1

MTX 110

4 Credits

22 hours of lecture

44 hours of lab

Fundamentals of electric motor control. Topics include electrical safety, control transformers, overload protection, ladder logic, control relays, electronic sensors, and other topics related to the fundamental operation of electronic motor control. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

ELECTRICAL POWER DISTRIBUTION

MTX 113

2 Credits

11 hours of lecture

22 hours of lab

Fundamentals of electrical power distribution as it relates to mechatronics. Topics include an introduction to race-ways, conduit bending, rigid conduit, flexible conduit, conductors, disconnects, overcurrent protection, conduit sizing, and wire pulling techniques. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

MECHATRONICS 1

MTX 117

2 Credits

11 hours of lecture

22 hours of lab

Fundamentals of mechatronics. Topics include automation operations, control systems, mechatronic safety, component adjustments, manual operation, pneumatic and electric pick and place. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

MECHANICAL DRIVES 1

MTX 120

3 Credits

22 hours of lecture

22 hours of lab

Introduction to mechanical drive systems. Topics include mechanical power transmission safety, machine installation, motor mounting, shaft speed measurement, torque and power measurement, v-belt, chain and spur gear drives and other topics as well. Advantages of each system type will be discussed and compared. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

PICK AND PLACE ROBOT

MTX 123

2 Credits

11 hours of lecture

22 hours of lab

Fundamentals of the pick and place robot using the SMC system. Topics include pneumatic robotic systems, preventive maintenance and troubleshooting as well as pneumatic robot control. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

SERVO ROBOT

MTX 125

3 Credits

22 hours of lecture

22 hours of lab

Introduction to the articulated arm servo robot using the SMC system. Topics include basic robot operation, teach point programming, PC software programming, application development, flexible manufacturing cells, quality control and production control. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

PIPING

MTX 127

2 Credits

11 hours of lecture

22 hours of lab

Fundamentals of piping. Topics include metal piping systems, metal piping installation, metal tubing systems and hoses. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

PROGRAMMABLE LOGIC CONTROLLERS 1

MTX 130

4 Credits

22 hours of lecture

44 hours of lab

Introduction to programmable logic controllers. Topics include basic programming of PLCs, PLC motor control methods, discrete I/O interfacing, event sequencing, timers, counters and program control instructions. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of instructional Unit. [GE]

INDUSTRIAL ELECTRICAL WIRING

MTX 135

3 Credits

11 hours of lecture

44 hours of lab

Fundamentals of industrial electrical wiring. Topics include electrical prints, electrical panels, wiring between panels, wire color coding, control system wiring and wire bundling. A final grade of "C" or better is required for degree or certification consideration. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit.

MECHANICAL DRIVES 2

MTX 150

2 Credits

11 hours of lecture

22 hours of lab

Intermediate concepts of mechanical drive systems. Topics include heavy-duty v-belts, v-belt selection and maintenance, synchronous belt drives, lubrication concepts, precision shaft alignment techniques and heavy duty chain drives. Advantages of each system type will be discussed and compared. Prerequisite: A grade of "C" or better in MTX 120 or consent of Instructional Unit. [GE]

DC DRIVES

MTX 153

4 Credits

22 hours of lecture

44 hours of lab

Introduction to DC drives. Topics include DC motion control, SCR control, DC spindle drives, DC axis drives and DC pulse width modulation drives. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

AC DRIVES

MTX 155

4 Credits

22 hours of lecture

44 hours of lab

Introduction to AC drives: Topics include AC motion control, AC Vector drives, AC axis drives, general purpose AC drives and AC drive troubleshooting. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

ELECTRIC MOTOR CONTROL 2

MTX 165

4 Credits

22 hours of lecture

44 hours of lab

Introduction to electric motor control troubleshooting techniques. Techniques include control component, motor starter and systems troubleshooting methods. Related topics include various motor braking methods and power distribution. Prerequisite: A grade of "C" or better in MTX 110 or consent of Instructional Unit. [GE]

CO-OP WORK EXPERIENCE

MTX 199

1 - 5 Credits

165 hours of clinical

Work-based learning experience that enables students to apply specialized occupational theory, skills and concepts. Specific objectives are developed by the College and the employer. Prerequisite: Completion of, or concurrent enrollment in HDEV 105, 198 or 200 required. Consent of Instructional Unit. [GE]

FLOW PROCESS CONTROL

MTX 205

5 Credits

33 hours of lecture

44 hours of lab

Introduction to level/flow process control using the SMC system. Topics include process control concepts, safety, sight gauges, instrument tags, piping and instrumentation diagrams, loop controllers, final control elements, level management, liquid level control, methods of automatic control as well as other concepts. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

THERMAL PROCESS CONTROL

MTX 207

5 Credits

33 hours of lecture

44 hours of lab

Introduction to thermal process control using the SMC system. Topics include process control concepts, safety, instrument tag fundamental, piping and instrumentation diagrams, thermal energy, basic temperature control elements, final control elements, temperature sensors, and temperature transmitters. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

ELECTRO-FLUID POWER

MTX 210

4 Credits

22 hours of lecture

44 hours of lab

Fundamentals of electro-fluid power. Topics include electrical control systems, basic control devices, power devices, control relays, sequencing, timer and pressure control and circuit applications. Prerequisite: A grade of "C" or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

MECHATRONICS 2

MTX 215

3 Credits

22 hours of lecture

22 hours of lab

Intermediate concepts of mechatronics. Topics include robotic pick and place assembly, torquing/assembly, parts storage and multiple station control. Prerequisite: A grade of "C" or better in MTX 117 or consent of Instructional Unit. [GE]

MECHATRONICS 3

MTX 217

5 Credits

33 hours of lecture

44 hours of lab

Advanced concepts of manufacturing stations of the SMC system as it applies to mechatronics. Topics include flexible materials handling, robot workstations, inventory control, serial robot communications, PLC communications, barcode pallet tracking, manufacturing execution systems, manufacturing management and simulation, ethernet operation and applications. Prerequisite: A grade of "C" or better in MTX 215 or consent of Instructional Unit. [GE]

WORKPLACE ORGANIZATION AND PRACTICES

MTX 220 2 Credits
11 hours of lecture 22 hours of lab
Introduction to the enterprise system: topics include technology sectors, team concepts, product design, business presentation and business presentation software. Prerequisite: A grade of “C” or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

WORK TEAMS AND PRODUCT DESIGN

MTX 223 3 Credits
22 hours of lecture 22 hours of lab
Intermediate concepts of the enterprise system. Topics include team development, team problem solving, product design analysis and engineering impacts. Prerequisite: A grade of “C” or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

SPEED CONTROL SYSTEMS

MTX 225 2 Credits
11 hours of lecture 22 hours of lab
Introduction to speed control systems. Topics include variable frequency AC drives, VFD speed and torque, VFD acceleration, deceleration, braking, VFD fault diagnostics and troubleshooting as well as SCR motor control. Prerequisite: A grade of “C” or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

MECHANICAL DRIVES 3

MTX 227 4 Credits
22 hours of lecture 44 hours of lab
Introduction to various bearing types as used in mechanical drive systems as well as advanced gear drives. Topics include plain bearings, ball bearings, roller bearings and anti-friction bearings, as well as gaskets and seals and advanced gear drives. Prerequisite: A grade of “C” or better in MTX 150 or consent of Instructional Unit. [GE]

LASER ALIGNMENT

MTX 230 2 Credits
11 hours of lecture 22 hours of lab
Introduction to the concept and proper practices of laser alignment. Topics include laser shaft alignment, including rough and precision alignment, soft foot correction and analysis. Prerequisite: A grade of “C” or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

ADVANCED PROGRAMMABLE LOGIC CONTROLLERS

MTX 250 4 Credits
22 hours of lecture 44 hours of lab
Intermediate concepts of Programmable Logic Controls. Topics include analog input and output modules, analog scaling, network concepts, an introduction to Panelview and remote I/O concepts. Prerequisite: A grade of “C” or better in MTX 130, or equivalent, or consent of Instructional Unit. [GE]

ADVANCED HYDRAULICS

MTX 255 3 Credits
11 hours of lecture 44 hours of lab
Advanced concepts of hydraulics. Topics include hydraulic directional control valves, hydraulic cylinder applications, relief valves, check valves and accumulators. Prerequisite: A grade of “C” or better in MTX 105 or consent of Instructional Unit. [GE]

ADVANCED PNEUMATICS AND VACUUM

MTX 260 6 Credits
33 hours of lecture 66 hours of lab
Advanced concepts of pneumatics and vacuum concepts as well as troubleshooting as they apply to industry standards using the SMC training system. Topics include moving loads pneumatically, vacuum systems, air compressors, air preparation troubleshooting, troubleshooting pneumatic cylinders, motor and rotary actuator troubleshoot-

ing, vacuum system troubleshooting and other topics as well. Prerequisite: A grade of “C” or better in MTX 107, equivalent, or consent of Instructional Unit. [GE]

CAPSTONE

MTX 270

3 Credits 66 hours of lab

Integration of Mechatronics course concepts and skills. Activities include five weeks of lab time for a student team to create a manufacturing scenario using the SMC automated manufacturing equipment. Prerequisite: Consent of Instructional Unit. [GE]

PROJECT MANAGEMENT AND LEAN MANUFACTURING

MTX 285

2 Credits

11 hours of lecture

22 hours of lab

Introduction to project management within the enterprise system. Various topics include project management, lean manufacturing and industrial engineering systems. Prerequisite: A grade of “C” or better in ELEC 101, 102, and 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

SPECIAL PROJECTS

MTX 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

ORGANIZATIONAL ENTREPRENEURSHIP

MTX 295

3 Credits

22 hours of lecture

22 hours of lab

Introduction to economics and marketing techniques applicable to the business enterprise. Topics include enterprise economics, marketing basics and entrepreneurship. Prerequisite: A grade of “C” or better in ELEC 101, 102, 121; or concurrent enrollment in ELEC 101, 102, and 121; or consent of Instructional Unit. [GE]

Medical Radiography

RADIOGRAPHIC SKILL ENHANCEMENT LAB I

MRAD 011

1 Credits

22 hours of lab

Supervised lab experience for skill enhancement in radiographic positioning, evaluation of radiographic procedures, technique, and equipment for the first year medical radiography student. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit.

RADIOGRAPHIC SKILL ENHANCEMENT LAB II

MRAD 012

1 - 5 Credits

110 hours of lab

Supervised lab experience for skill enhancement in radiographic positioning, evaluation of radiographic procedures, technique, and equipment for the second year medical radiography student. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit.

INTRODUCTION TO RADIOLOGIC TECHNOLOGY

MRAD 101

3 Credits

33 hours of lecture

An orientation to the radiologic technology profession, imaging equipment, radiation safety, patient care and radiographic examinations, professional development, career advancement, and professional ethics and associations. Prerequisite: Completion of, or concurrent enrollment in BIOL& 251, 252, or 253 (BIOL 231, 232, or 233). [GE]

INTRODUCTION TO PATIENT CARE

MRAD 102

5 Credits

44 hours of lecture

22 hours of lab

Patient care aspects involved in being a Radiologic Technologist. Topics include: patient interactions, history taking, transfer techniques, immobilization, vital signs and oxygen, infection control, aseptic and non-aseptic techniques. The lecture for this course, quizzes, and other materials will be online and accessed through the course webpage. The class will be divided into two on-campus lab periods. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

IMAGE PROCESSING

MRAD 103

1 Credits

11 hours of lecture

Introduction to radiographic image processing using both traditional film and digital images. Topics for discussion include darkroom chemistry, equipment, and procedures and computer hardware and software in the radiology lab. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIATION SAFETY AND RADIOBIOLOGY

MRAD 104

2 Credits

22 hours of lecture

Introduction to proper procedures for working safely in the radiologic environment. Topics include: communication, radiation measurement, survey devices, conversion from traditional to systems international units, patient and radiographer protection, monitoring devices, safe operation of equipment, beam limitation, shielding, barriers, and fluoroscopic and mobile procedures. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of Instructional Unit. [GE]

RADIATION PHYSICS I

MRAD 108

3 Credits

22 hours of lecture

22 hours of lab

Focus on the fundamental principles of physics that underlie the use of radiation in diagnostic imaging. Using simplified math, and building on the concepts learned in Radiation Safety, develop a basic understanding of the production and control of X-radiation. Topics include: structure of atom, electromagnetic radiation, electrodynamics, electromagnetism, x-ray tube, x-ray production and interactions with matter. Hybrid course structure: some instruction will occur in the traditional classroom and some instruction will occur via the course website. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIATION PHYSICS II

MRAD 109

4 Credits

33 hours of lecture

22 hours of lab

Continuation of MRAD 108. The geometry of image formation and the radiographic qualities of density, contrast, detail and distortion. Topics include: radiographic equipment, controlling factors of density, contrast, detail and distortion, beam limiting devices and their impact on the image, grids, image receptors (analog and digital) and fundamentals of digital imaging. Includes heavy emphasis on solving problems involving radiographic qualities. This course will be structured as a hybrid course, with some instruction in the traditional classroom and some via the course website. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CLINICAL EXPERIENCE I

MRAD 121

8 Credits

264 hours of clinical

First in a series of seven competency based clinical courses. Students orient to an assigned clinical education center and by instruction, observation, and experience, acquire the necessary skills to successfully image patients utilizing

X-ray energy. Students will learn how to use the computer and PACS systems. Concurrent enrollment required in MRAD 108, 142, and 151. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CLINICAL EXPERIENCE II

MRAD 122

6 Credits

198 hours of clinical

Second in a series of seven competency-based clinical experience courses. Students orient to an assigned clinical site and by instruction, observation, and experience, acquire the necessary skills to successfully image patients utilizing x-ray energy. Students will be assessed for maintenance of competency from previous clinical evaluations and experiences. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CLINICAL EXPERIENCE III

MRAD 123

8 Credits

264 hours of clinical

Third in a series of seven competency-based experience courses. Students orient to an assigned clinical site and by instruction, observation, and experience, acquire the necessary skills to successfully image patients utilizing x-ray energy. Students will be assessed for maintenance of competency from previous clinical evaluations and experiences. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOGRAPHIC POSITIONING I

MRAD 141

5 Credits

44 hours of lecture

22 hours of lab

Introduction to basic radiographic positioning principles, terminology, pathology, and anatomy for radiographic purposes. Lecture discussion, demonstration and lab experiences will be used to present information on positioning and anatomy of the chest, abdomen and upper extremities. Projections studied will include cross-table images for trauma exams. Radiographic compliance, ICD coding, and ABN will be discussed. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOGRAPHIC POSITIONING II

MRAD 142

5 Credits

44 hours of lecture

22 hours of lab

Second in a five-course series that focuses on radiographic positioning principles, terminology, pathology, and anatomy for radiographic purposes. Lecture discussion, demonstration and lab experiences will be used to present information on positioning and anatomy of the shoulder, pelvic girdle, and lower limbs. Projections studied will include cross-table images for trauma exams. Radiographic compliance, ICD coding, and ABN will be discussed. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOGRAPHIC POSITIONING III

MRAD 143

5 Credits

44 hours of lecture

22 hours of lab

Third in a five-course series that focuses on radiographic positioning principles, terminology, pathology, and anatomy for radiographic purposes. Lecture discussion, demonstration and lab experiences will be used to present information on positioning and anatomy of the bony thorax, vertebral column, and sacrum and coccyx. Projections studied will include information on performing cross-table images for trauma exams. Concurrent enrollment in MRAD 143L. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

IMAGE EVALUATION I

MRAD 151

2 Credits

22 hours of lecture

First of a four-course series of radiographic image critique involving images of the chest, abdomen, and upper

extremities. Emphasis on the evaluation and critique of radiographic anatomy, exposure factors, positioning, and pathology. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

IMAGE EVALUATION II

MRAD 152 1 Credits
11 hours of lecture

Second in a four-course series of radiographic film critique involving images of the shoulder girdle, lower extremities, and pelvic girdle. Emphasis on the evaluation of radiographic anatomy, exposure factors, positioning, and pathology. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

IMAGE EVALUATION III

MRAD 153 1 Credits
11 hours of lecture

Third of a four-course series of radiographic film critique involving images of the bony thorax, vertebral column, and sacrum and coccyx. Emphasis on the evaluation of radiographic anatomy, exposure factors, positioning, and pathology. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

IMAGE EVALUATION IV

MRAD 154 1 Credits
11 hours of lecture

Fourth of a four-course series of radiographic film critique involving images of the cranium, facial bones, and paranasal sinuses. Emphasis on the evaluation of radiographic anatomy, exposure factors, positioning, and pathology. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

PHARMACOLOGY AND IV THERAPY

MRAD 214 3 Credits
22 hours of lecture 22 hours of lab

Introduction to the pharmacological principles and practices in patient care for the medical imaging professional including administration of diagnostic contrast agents and/or intravenous medications; includes competency in venipuncture practice. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOGRAPHIC PATHOLOGY

MRAD 216 3 Credits
33 hours of lecture

Basic terms and manifestations of pathological conditions, trauma, classifications of diseases, genetics, and the healing process. Imaging procedures and radiographic appearance as well as interventional techniques appropriate for diseases common to each body system. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CLINICAL EXPERIENCE IV

MRAD 224 8 Credits
264 hours of clinical

Fourth in a series of seven competency-based clinical experience courses. Students orient to an assigned clinical education center and by instruction, observation, and experience, acquire the necessary skills to successfully image patients utilizing x-ray energy. Students will be assessed for maintenance of competency from previous clinical evaluations and experience. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CLINICAL EXPERIENCE V

MRAD 225

8 Credits

264 hours of clinical

Fifth in a series of seven competency-based clinical experience courses. Students orient to an assigned clinical education center and by instruction, observation, and experience, acquire the necessary skills to successfully image patients utilizing x-ray energy. Students will be assessed for maintenance of competency from previous clinical evaluations and experiences. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CLINICAL EXPERIENCE VI

MRAD 226

9 Credits

297 hours of clinical

Sixth in a series of seven competency-based clinical experience courses. Students orient to an assigned clinical site and by instruction, observation, and experience, acquire the necessary skills to successfully image patients utilizing x-ray energy. Students will be assessed for maintenance of competency from previous clinical evaluations and experiences. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CLINICAL EXPERIENCE VII

MRAD 227

12 Credits

363 hours of clinical

Seventh in a series of seven competency-based clinical experience courses. Students orient to an assigned clinical site and by instruction, observation, and experience, acquire the necessary skills to successfully image patients utilizing x-ray energy. Students will be assessed for maintenance of competency from previous clinical evaluations and experiences. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOGRAPHIC POSITIONING IV

MRAD 244

3 Credits

22 hours of lecture

22 hours of lab

Fourth in a five-course series that focuses on radiography positioning principles, terminology, pathology, and anatomy for radiographic purposes. Lecture discussion, demonstration and lab experiences will be used to present information on positioning and anatomy of conventional tomography, upper gastrointestinal system, lower gastrointestinal system, gallbladder and biliary ducts, urinary system, and surgical radiography. Projections studied will include cross-table images for trauma exams. Radiographic compliance, ICD coding, and ABN will be discussed. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOGRAPHIC POSITIONING V

MRAD 245

3 Credits

22 hours of lecture

22 hours of lab

Fifth in a five-course series that focuses on radiographic positioning principles, terminology, pathology, and anatomy for radiographic purposes. Lecture discussion, demonstration and lab experiences will be used to present information on positioning and anatomy of the cranium, facial bones and paranasal sinuses. Projections studied will include cross-table images for trauma exams. Radiographic compliance, ICD coding, and ABN will be discussed. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOGRAPHIC INFORMATION MANAGEMENT

MRAD 251

2 Credits

22 hours of lecture

Fundamentals of digital radiography, Radiology Information System (RIS), and Picture Archiving and Communication System (PACS), basic Medical Imaging Information systems, CR and DR Image acquisition, manipulation and quality control. Concurrent enrollment in the Medical Radiography Program with a grade of “C” or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

RADIOBIOLOGY

MRAD 253

2 Credits

22 hours of lecture

Overview of the principles involving the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues, and the body as a whole. Topics include: radiolysis of water, linear energy transfer, relative biologic effectiveness, acute radiation syndrome, effects on embryo and fetus, chromosomal aberrations, mutations, risk estimates, and carcinogenesis. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

ADVANCED MODALITIES

MRAD 255

1 Credits

11 hours of lecture

Introduction to CT, MRI, sonography, mammography, special fluoroscopic procedures and other advanced imaging modalities including angiography and interventional. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

LEADERSHIP AND MANAGEMENT

MRAD 270

1 Credits

11 hours of lecture

Introductory to leadership skills associated with patient care and management. Focus on supervision, delegation, conflict resolution, leadership styles, quality assurance, ethics, work environment, responsibility, accountability, collaboration and teamwork; as well as interviewing and resume training. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

MEDICAL RADIOGRAPHY REVIEW

MRAD 275

2 Credits

22 hours of lecture

Comprehensive review class to prepare students to sit for the American Registry of Radiologic Technologists (ARRT) certification examination: radiation protection, equipment operation and quality control, image production and evaluation, radiographic procedures, and patient care and education are covered in adherence with ARRT exam specifications. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

CROSS SECTIONAL ANATOMY FOR IMAGING PROFESSIONAL

MRAD 279

3 Credits

33 hours of lecture

Sectional human anatomy in the axial/transverse, sagittal, and coronal planes with emphasis on the brain, head, chest and abdominopelvic cavity. Introduction to basic CT physics. Concurrent enrollment in the Medical Radiography Program with a grade of "C" or better. Prerequisite: Admission in the Medical Radiography Program and consent of the Instructional Unit. [GE]

SELECTED TOPICS

MRAD 280

1 - 5 Credits

55 hours of lecture

Varying topics in Medical Radiography, as listed in the quarterly class schedule. May be repeated for credit. Prerequisite: Consent of Instructional Unit. [GE]

SPECIAL PROJECTS

MRAD 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Meteorology

ATMOSPHERE AND THE ENVIRONMENT

METR 101 5 Credits
44 hours of lecture 44 hours of lab

Fundamental theories in meteorology and current topics in the atmospheric sciences are developed conceptually for non-science students interested in the changing environment. Topics include atmospheric structure and composition, global circulation and atmospheric motions, clouds and precipitation, weather patterns and weather prediction, tornadoes, hurricanes, the greenhouse effect, atmospheric ozone, air pollution, and El Nino. [NS, SE]

SPECIAL PROJECTS

METR 290 1 - 5 Credits

Opportunity to plan and complete special projects approved by the instructional unit. Prerequisite: Consent of Instructional Unit. [GE]

Music

SPECIAL SEMINARS

MUSC 100 1 - 5 Credits
55 hours of lecture

Special workshops on various musical topics as listed in the quarterly class schedule. [HA, SE]

BEGINNING PIANO CLASS

MUSC 101 2 Credits
22 hours of lecture

Beginning-level study of the piano. [HB, SE]

MUSIC APPRECIATION

MUSC& 104 3 Credits
33 hours of lecture

Study and understanding of music. Nonverbal explorations into the listening process, a brief look at the history of Western music, and work in formal descriptive music analysis. [HA, SE]

MUSIC IN EARLY CHILDHOOD EDUCATION

MUSC 106 3 Credits
33 hours of lecture

Introduction to music as a teaching tool for young children, and to the importance of music in the educational development of children. Students develop skills in reading music, working with the musical abilities of young children, and using music in the classroom. [HB, SE]

BEGINNING GUITAR CLASS

MUSC 110 2 Credits
22 hours of lecture

Beginning-level study of the guitar. [HB, SE]

BEGINNING VOICE CLASS

MUSC 115 2 Credits
11 hours of lecture 22 hours of lab

Basic technique and knowledge about singing. No previous experience or music study required. [HB, SE]

MUSIC HISTORY: MIDDLE AGES TO BAROQUE

MUSC 116 5 Credits
55 hours of lecture

Music of the Middle Ages, Renaissance and Baroque studied in context of its cultural and historical environment.

Recordings of Gregorian chant, polyphonic music of the Renaissance (des Pres and Palestrina) and Baroque music (Bach, Frescobaldi, Corelli, Monteverdi, and Handel) listened to and studied. [HA, SE]

MUSIC HISTORY: CLASSICAL/ROMANTIC

MUSC 117 5 Credits
55 hours of lecture

Music of the classical and romantic eras studied in context of its cultural and historical environment. Recordings of Haydn, Mozart, Beethoven, Schubert, Wagner, Brahms, and others listened to and studied. [HA, SE]

MUSIC HISTORY: TWENTIETH CENTURY

MUSC 118 5 Credits
55 hours of lecture

Music of the twentieth century studied in context of its cultural and historical environment. Recordings and live performances. Debussy, Stravinsky, Schoenberg, Berg, Hindemith, Stockhausen, and others listened to and studied in context of 20th century culture. [SE, HA]

EAR TRAINING 1

MUSC& 121 2 Credits
22 hours of lecture

Learning to write what is heard in melodic and intervalic ways. Sight singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight singing and drill. [HB, SE]

EAR TRAINING 2

MUSC& 122 2 Credits
22 hours of lecture

Continuation of MUS 144. Learning to write what is heard in melodic and intervalic ways. Sight-singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight-singing and drill. Prerequisite: MUS 144 or consent of Instructional Unit. [HB, SE]

EAR TRAINING 3

MUSC& 123 2 Credits
22 hours of lecture

Learning to write what is heard in melodic and intervalic ways. Sight-singing and chord recognition. Prerequisite: MUS 145 or consent of Instructional Unit. [HB, SE]

ROCK MUSIC

MUSC 125 3 Credits
33 hours of lecture

Rhythm, melody, harmony, timbre, text uses, and form in current rock music. Problems and definitions of these elements with illustrations from various styles of rock music. [HA, SE]

WORLD FOLK MUSIC

MUSC 127 3 Credits
33 hours of lecture

Folk music in selected cultures beginning with the Anglo-American folk song. Music and cultural values. Role of music in folk cultures. Appreciation of differences in music styles as they relate to their social settings. [HA, SE]

MUSIC APPRECIATION

MUSC 128 3 Credits
33 hours of lecture

Study and understanding of music. Nonverbal explorations into the listening process, a brief look at the history of Western music, and work in formal descriptive music analysis. [HA, SE]

JAZZ APPRECIATION

MUSC 135 3 Credits
33 hours of lecture

An interactive process of learning for all jazz enthusiasts, from casual listeners to experienced performers. Topics

include ways to listen to jazz, a chronology of significant jazz periods, societal events affecting each period, and biographies of key performers, culminating in a fieldwork project focusing on local jazz groups. [HA, SE]

CLARK COLLEGE CHORALE

MUSC 137 1 - 2 Credits
11 hours of lecture 22 hours of lab

The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CLARK COLLEGE CHORALE

MUSC 138 1 - 2 Credits
11 hours of lecture 22 hours of lab

The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CLARK COLLEGE CHORALE

MUSC 139 1 - 2 Credits
11 hours of lecture 22 hours of lab

The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

MUSIC THEORY I

MUSC& 141 5 Credits
55 hours of lecture

First-year musicianship. Sound sources and nature of sound. Writing skills and use of musical symbol-notation. Basic vocabulary of music. Introduction to forms, composition, and analysis. Open to all students. Concurrent enrollment in MUS 144 required. [HA, SE]

MUSIC THEORY II

MUSC& 142 5 Credits
55 hours of lecture

Continuation of MUSC& 141. Addition to the I 6-4, II, VI, III chords to harmonic tones, ear training in melodic and rhythmic concepts. Intervals and introduction to the keyboard. Concurrent enrollment in MUSC& 122 required. Prerequisite: MUSC& 141 or consent of Instructional Unit. [HA, SE]

MUSIC THEORY III

MUSC& 143 5 Credits
55 hours of lecture

Continuation of MUSC& 142. Chromatic chords, popular song forms and jazz-related harmonies and forms. Concurrent enrollment in MUSC& 123 required. Prerequisite: MUSC& 142 or consent of Instructional Unit. [HA, SE]

ORCHESTRA

MUSC 150 1 - 2 Credits
11 hours of lecture 22 hours of lab

Performance of orchestral literature from a variety of periods and styles. [HB, SE]

ORCHESTRA

MUSC 151 1 - 2 Credits
11 hours of lecture 22 hours of lab

Performance of orchestral literature from a variety of periods and styles. [HB, SE]

ORCHESTRA

MUSC 152 1 - 2 Credits
11 hours of lecture 22 hours of lab
Performance of orchestral literature from a variety of periods and styles. [HB, SE]

WOMEN'S CHORAL ENSEMBLE

MUSC 153 1 - 2 Credits
11 hours of lecture 22 hours of lab
Performance of choral music from a variety of periods and styles written for women's voices. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

WOMEN'S CHORAL ENSEMBLE

MUSC 154 1 - 2 Credits
11 hours of lecture 22 hours of lab
Performance of choral music from a variety of periods and styles written for women's voices. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

WOMEN'S CHORAL ENSEMBLE

MUSC 155 1 - 2 Credits
11 hours of lecture 22 hours of lab
Performance of choral music from a variety of periods and styles written for women's voices. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

APPLIED VOICE

MUSC 170 1 Credits
11 hours of lecture
Private voice lessons with a college-approved teacher. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE

MUSC 171 1 Credits
11 hours of lecture
Private voice lessons with a college-approved teacher. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE

MUSC 172 1 Credits
11 hours of lecture
Private voice lessons with a college-approved teacher. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO

MUSC 173 1 Credits
11 hours of lecture
For students with some previous keyboard experience. Prerequisite: MUS 201 and written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO

MUSC 174 1 Credits
11 hours of lecture
For students with some previous keyboard experience. Prerequisite: MUS 201 and written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO

MUSC 175 1 Credits
11 hours of lecture
For students with some previous keyboard experience. Prerequisite: MUS 201 and consent of Instructional Unit.
[HB, SE]

APPLIED INSTRUMENT

MUSC 176 1 Credits
11 hours of lecture
Private lessons with a college-approved teacher. Instruction available for orchestra and band instruments. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT

MUSC 177 1 Credits
11 hours of lecture
Private lessons with a college-approved teacher. Instruction available for orchestra and band instruments. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT

MUSC 178 1 Credits
11 hours of lecture
Private lessons with a college-approved teacher. Instruction available for orchestra and band instruments. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

CONCERT BAND

MUSC 180 1 - 2 Credits
11 hours of lecture 22 hours of lab
Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per quarter. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]

CONCERT BAND

MUSC 181 1 - 2 Credits
11 hours of lecture 22 hours of lab
Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per quarter. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]

CONCERT BAND

MUSC 182 1 - 2 Credits
11 hours of lecture 22 hours of lab
Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per quarter. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]

CONCERT CHOIR

MUSC 183 1 - 2 Credits
11 hours of lecture 22 hours of lab
The concert choir performs a wide variety of choral music in at least one public concert per quarter. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CONCERT CHOIR

MUSC 184 1 - 2 Credits
11 hours of lecture 22 hours of lab

The concert choir performs a wide variety of choral music in at least one public concert per quarter. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CONCERT CHOIR

MUSC 185 1 - 2 Credits
11 hours of lecture 22 hours of lab

The concert choir performs a wide variety of choral music in at least one public concert per quarter. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

JAZZ IMPROVISATION

MUSC 186 2 Credits
11 hours of lecture 22 hours of lab

Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [HB, SE]

VOCAL JAZZ ENSEMBLE

MUSC 187 1 - 3 Credits
22 hours of lecture 22 hours of lab

Selection, arrangement, rehearsal, and performance of a variety of popular vocal jazz pieces. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

VOCAL JAZZ ENSEMBLE

MUSC 188 1 - 3 Credits
22 hours of lecture 22 hours of lab

Selection, arrangement, rehearsal, and performance of a variety of popular vocal jazz pieces. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

VOCAL JAZZ ENSEMBLE

MUSC 189 1 - 3 Credits
22 hours of lecture 22 hours of lab

Selection, arrangement, rehearsal, and performance of a variety of popular vocal jazz pieces. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

INSTRUMENTAL ENSEMBLE

MUSC 193 2 Credits
11 hours of lecture 22 hours of lab

Combination of woodwinds and brasses organized as performing groups. Experience in ensemble playing. Familiarization with literature for ensembles. [HB, SE]

JAZZ ENSEMBLE

MUSC 195 1 - 2 Credits
11 hours of lecture 22 hours of lab

Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

JAZZ ENSEMBLE

MUSC 196 1 - 2 Credits
11 hours of lecture 22 hours of lab

Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics

include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

JAZZ ENSEMBLE

MUSC 197

1 - 2 Credits

11 hours of lecture

22 hours of lab

Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

INTERMEDIATE PIANO CLASS

MUSC 201

2 Credits

22 hours of lecture

Intermediate-level study of the piano. Prerequisite: MUS 101 or consent of Instructional Unit. [HB, SE]

ADVANCED PIANO CLASS

MUSC 202

2 Credits

22 hours of lecture

A continuation of instruction from Intermediate Piano. Baroque, classic, romantic, and contemporary repertoire, jazz stylings and fake books. Prerequisite: MUSC 201 or consent of Instructional Unit. [HB, SE]

INTERMEDIATE GUITAR CLASS

MUSC 210

2 Credits

22 hours of lecture

Intermediate-level study of the guitar. Prerequisite: MUS 110 or consent of Instructional Unit. [HB, SE]

EAR TRAINING 4

MUSC& 221

2 Credits

22 hours of lecture

Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [HB, SE]

EAR TRAINING 5

MUSC& 222

2 Credits

22 hours of lecture

Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. Prerequisite: MUSC& 221. [HB, SE]

EAR TRAINING 6

MUSC& 223

2 Credits

22 hours of lecture

Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. Prerequisite: MUSC& 222. [HB, SE]

MUSIC THEORY IV

MUSC& 231

3 Credits

33 hours of lecture

Extended chromatic chords, borrowed chords, Neapolitan 6th chords, augmented 6th chords, altered dominants, and chromatic mediants. Concurrent enrollment in MUS 244 required. Prerequisite: MUS 143 or consent of division. [HA, SE]

MUSIC THEORY V

MUSC& 232

3 Credits

33 hours of lecture

Study of variation form, sonata form, rondo form and fugue. Concurrent enrollment in MUS 245 required. Prerequisite: MUS 241 or consent of division. [HA, SE]

MUSIC THEORY VI

MUSC& 233

3 Credits

33 hours of lecture

Invention and two-voice counterpoint. Extensions of harmonic language and compositional styles in the 20th/21st century, including atonal forms. Concurrent enrollment in MUS 245 required. Prerequisite: MUS 242 or consent of division. [HA, SE]

CLARK COLLEGE CHORALE

MUSC 237

1 - 2 Credits

11 hours of lecture

22 hours of lab

The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CLARK COLLEGE CHORALE

MUSC 238

1 - 2 Credits

11 hours of lecture

22 hours of lab

The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CLARK COLLEGE CHORALE

MUSC 239

1 - 2 Credits

11 hours of lecture

22 hours of lab

The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

ORCHESTRA

MUSC 250

1 - 2 Credits

11 hours of lecture

22 hours of lab

Performance of orchestral literature from a variety of periods and styles. [HB, SE]

ORCHESTRA

MUSC 251

1 - 2 Credits

11 hours of lecture

22 hours of lab

Performance of orchestral literature from a variety of periods and styles. [HB, SE]

ORCHESTRA

MUSC 252

1 - 2 Credits

11 hours of lecture

22 hours of lab

Performance of orchestral literature from a variety of periods and styles. [HB, SE]

WOMEN'S CHORAL ENSEMBLE

MUSC 253

1 - 2 Credits

11 hours of lecture

22 hours of lab

Performance of choral music from a variety of periods and styles written for women's voices. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

WOMEN'S CHORAL ENSEMBLE

MUSC 254 1 - 2 Credits
11 hours of lecture 22 hours of lab
Performance of choral music from a variety of periods and styles written for women's voices. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

WOMEN'S CHORAL ENSEMBLE

MUSC 255 1 - 2 Credits
11 hours of lecture 22 hours of lab
Performance of choral music from a variety of periods and styles written for women's voices. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

APPLIED VOICE

MUSC 270 1 Credits
11 hours of lecture
Private voice lessons with a college-approved teacher. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE

MUSC 271 1 Credits
11 hours of lecture
Private voice lessons with a college-approved teacher. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE

MUSC 272 1 Credits
11 hours of lecture
Private voice lessons with a college-approved teacher. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO

MUSC 273 1 Credits
11 hours of lecture
Private lessons with a college-approved teacher. Prerequisite: MUSC 201 and consent of Instructional Unit. [HB, SE]

APPLIED PIANO

MUSC 274 1 Credits
11 hours of lecture
Private lessons with a college-approved teacher. Prerequisite: MUSC 201 and consent of Instructional Unit. [HB, SE]

APPLIED PIANO

MUSC 275 1 Credits
11 hours of lecture
Private lessons with a college-approved teacher. Prerequisite: MUSC 201 and consent of Instructional Unit. [HB, SE]

APPLIED INSTRUMENT

MUSC 276 1 Credits
11 hours of lecture
Private lessons with a college-approved teacher. Instruction available for orchestra and band instruments. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT

MUSC 277

1 Credits

11 hours of lecture

Private lessons with a college-approved teacher. Instruction available for orchestra and band instruments. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT

MUSC 278

1 Credits

11 hours of lecture

Private lessons with a college-approved teacher. Instruction available for orchestra and band instruments. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

CONCERT BAND

MUSC 280

1 - 2 Credits

11 hours of lecture

22 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per quarter. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]

CONCERT BAND

MUSC 281

1 - 2 Credits

11 hours of lecture

22 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per quarter. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]

CONCERT BAND

MUSC 282

1 - 2 Credits

11 hours of lecture

22 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per quarter. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]

CONCERT CHOIR

MUSC 283

1 - 2 Credits

11 hours of lecture

22 hours of lab

The concert choir performs a wide variety of choral music in at least one public concert per quarter. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CONCERT CHOIR

MUSC 284

1 - 2 Credits

11 hours of lecture

22 hours of lab

The concert choir performs a wide variety of choral music in at least one public concert per quarter. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

CONCERT CHOIR

MUSC 285

1 - 2 Credits

11 hours of lecture

22 hours of lab

The concert choir performs a wide variety of choral music in at least one public concert per quarter. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

VOCAL JAZZ ENSEMBLE

MUSC 287 1 - 3 Credits
22 hours of lecture 22 hours of lab
Selection, arrangement, rehearsal, and performance of a variety of popular vocal jazz pieces. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

VOCAL JAZZ ENSEMBLE

MUSC 288 1 - 3 Credits
22 hours of lecture 22 hours of lab
Selection, arrangement, rehearsal, and performance of a variety of popular vocal jazz pieces. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

VOCAL JAZZ ENSEMBLE

MUSC 289 1 - 3 Credits
22 hours of lecture 22 hours of lab
Selection, arrangement, rehearsal, and performance of a variety of popular vocal jazz pieces. Prerequisite: Audition or consent of Instructional Unit. [HB, SE]

SPECIAL PROJECTS

MUSC 290 1 - 5 Credits
Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [HB, GE]

JAZZ ENSEMBLE

MUSC 295 1 - 2 Credits
11 hours of lecture 22 hours of lab
Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

JAZZ ENSEMBLE

MUSC 296 1 - 2 Credits
11 hours of lecture 22 hours of lab
Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

JAZZ ENSEMBLE

MUSC 297 1 - 2 Credits
11 hours of lecture 22 hours of lab
Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

Network Technology

INTRODUCTION TO VOICE AND DATA COMMUNICATIONS

DNET 102 2 Credits
11 hours of lecture 22 hours of lab

Introduction to voice and data communications for beginning students. Topics include key facets of voice and data communications: operation of a telephone set, sending voice over data networks, processing of calls in public and private telephone systems. [GE]

CISCO CCNA 1: NETWORK + AND CCNA NETWORK BASICS

DNET 121 6 Credits
44 hours of lecture 44 hours of lab

First of four courses to prepare for Cisco CCNA certification: an introduction to concepts needed for Network+ certification. Topics include network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, switches, Ethernet, Internet Protocol (IP) addressing, and network standards. Focus on the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building, and environmental codes and regulations. [GE]

COOPERATIVE WORK EXPERIENCE

DNET 199 1 - 6 Credits
198 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employee evaluation. Prerequisite: Completion of or concurrent enrollment in HDEV 195 and 198 or 200 and consent of Instructional Unit. [GE]

TELECOM 1: BASIC TELECOMMUNICATIONS

DNET 211 6 Credits
44 hours of lecture 44 hours of lab

First of two courses for CCNT certification: fundamentals of telecommunications and comprehensive introduction to analog and digital concepts. Topics include history of telecommunications, structure of business systems (including station sets, PBX, key and hybrid systems, ISDN and broadband), Consumer Premises Equipment (CPE), and services (dedicated and switched); analog signals - their history and associated variables; digital systems - their advantages over analog, also Pulse Code Modulation, Time Division Multiplexing, optical standards and loop carriers; transmission networks, switching, and signaling. Network+ Certification may substitute as a prerequisite for DNET 211. Prerequisite: A grade of "C" or better in DNET 121 or CTEC 151, or consent of Instructional Unit. [GE]

TELECOM 2: VOICE OVER IP (VOIP) ESSENTIALS

DNET 212 6 Credits
44 hours of lecture 44 hours of lab

Second of two courses of CCNT certification: Introduction to Computer-Telephony Integration Essentials (CTI) and Voice over IP (VoIP), CTI topics include CTI architecture, hardware, market applications and system development; VoIP topics include its technology, benefits, QoS issues and their solutions, and standards; Packet voicing basics, Internet technology, and the benefits and applications of VoIP; Gateways and their various functions, major issues involved in bandwidth consumption, and consideration of uses of PCs as phones; transmission standards and protocols in VoIP networks (e.g. H.323, SIP, G.7xx); Quality of Service (QoS) issues associated with VoIP technology, and the most significant solutions to these QoS issues. Prerequisite: A grade of "C" or better in DNET 211, or consent of Instructional Unit. [GE]

INTRO TO NETWORK SERVERS: WINDOWS AND LINUX

DNET 220 6 Credits
44 hours of lecture 44 hours of lab

Knowledge and skills for using Windows Server OS and LINUX Server OS to setup LAN/WAN connections and authentication; and to explore features of the network operating systems, such as FTP, email, web server, file server,

print server, remote desktop, DNS, DHCP, and users and groups. Prerequisite: A grade of “C” or better in DNET 121 or CTEC 151, or consent of Instructional Unit. [GE]

CISCO CCNA 1: NETWORK FUNDAMENTALS

DNET 221

6 Credits

44 hours of lecture

44 hours of lab

Introduction to architecture, structure, functions, components, and models of the Internet, using the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Students will build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Prerequisite: A grade of “C” or better in MATH 090, ENGL 098, or consent of Instructional Unit. [GE]

CISCO CCNA 2: ROUTING PROTOCOLS AND CONCEPTS

DNET 222

6 Credits

44 hours of lecture

44 hours of lab

Architecture, components, and operation of routers, and the principles of routing and routing protocols. Topics include analyzing, configuring, verifying, and troubleshooting the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Skills include recognizing and correcting common routing issues and problems, through basic procedural labs, basic configuration, implementation, and troubleshooting labs. Prerequisite: A grade of “C” or better in DNET 221, or consent of Instructional Unit. [GE]

CISCO CCNA 3: LAN SWITCHING AND WIRELESS

DNET 223

6 Credits

44 hours of lecture

44 hours of lab

Comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network; the hierarchical network design model and selecting devices for each layer. Focus on how to configure a switch for basic functionality and how to implement Virtual LANs, VTP, and Inter-VLAN routing in a converged network; and the different implementations of Spanning Tree Protocol in a converged network. Knowledge and skills necessary to implement a WWLAN in a small to medium network. Prerequisite: A grade of “C” or better in DNET 222, or consent of Instructional Unit. [GE]

CISCO CCNA 4: ACCESSING THE WAN

DNET 224

6 Credits

44 hours of lecture

44 hours of lab

WAN technologies and network services required by converged applications in Enterprise Networks using the Cisco Enterprise Composite model (ECM) to introduce integrated network services. Topics include how to select the appropriate devices and technologies to meet ECM requirements, how to implement and configure common data link protocols, how to apply WAN security concepts, principles of traffic, access control and addressing services, and how to detect, troubleshoot, and correct common enterprise network implementation issues. Prerequisite: A grade of “C” or better in DNET 223, or consent of Instructional Unit. [GE]

CISCO CCNA SECURITY

DNET 225

6 Credits

44 hours of lecture

44 hours of lab

Preparation to obtain CCNA Security Certification. Course meets the needs of IT professionals responsible for network security. Developing skills for job roles such as Network Security Specialists, Security Administrators, and Network Security Support Engineers. Skills include installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Introduction to core security technologies as well as how to develop security policies and mitigate risks. Prerequisite: A grade of “C” or better in DNET 224, or consent of Instructional Unit. [GE]

VOICE OVER IP

DNET 226

6 Credits

44 hours of lecture

44 hours of lab

Preparation to obtain Cisco CCNA Voice certification. Required skill set for specialized job roles in voice technologies such as voice technologies administrator, voice engineer, and voice manager; in-demand skills in VoIP technologies such as IP PBX, IP telephony, handset, call control, and voicemail solutions; and exposure to the Cisco Unified Communications architecture and design covering mobility, presence, and TelePresence applications. Prerequisite: A grade of "C" or better in DNET 224, or consent of Instructional Unit. [GE]

CISCO CCNA 2: ROUTERS AND ROUTING BASICS

DNET 231

6 Credits

44 hours of lecture

44 hours of lab

Second of four courses for Cisco CCNA certification: an introduction to initial router configuration. Topics include Cisco IOS Software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Focus on skills to configure a router, managing Cisco IOS Software, configuring protocol on routers, and set the access lists to control the access to routers. Prerequisite: A grade of "C" or better in DNET 121 or CTEC 151, or consent of Instructional Unit. [GE]

COMPTIA A+ COMPUTER SUPPORT TECHNICIAN

DNET 232

6 Credits

44 hours of lecture

44 hours of lab

Preparation to successfully pass the CompTIA A+ certification, the industry standard for computer support technicians. Focus on the installation, preventative maintenance, networking, security and troubleshooting of PC desktop systems, with emphasis on hands-on role playing experiences to develop excellent customer service and communication skills to work with clients. Prerequisite: A grade of "C" or better in CTEC 110, or department approval. [GE]

SERVER HARDWARE/SOFTWARE: SERVER+

DNET 233

6 Credits

44 hours of lecture

44 hours of lab

Focus on CompTIA Server+ certification and Industry Standard Server Architecture (ISSA) issues, such as RAID, SCSI, multiple CPUs, SANs - and more. Prerequisite: A grade of "C" or better in CTEC 210, or consent of Instructional Unit. [GE]

MICROSOFT ACTIVE DIRECTORY

DNET 234

6 Credits

44 hours of lecture

44 hours of lab

Windows Server 2009 Active Directory Domain Services includes features allowing organizations to simplify and secure deployment, and to administer AD DS more efficiently. Developing comprehensive hands-on skills required to effectively manage and secure a high-availability AD enterprise and ensure a successful migration to Windows Server 2008 Active Directory. Prerequisite: A grade of "C" or better in DNET 221, or consent of Instructional Unit. [GE]

MICROSOFT NETWORK INFRASTRUCTURE

DNET 235

6 Credits

44 hours of lecture

44 hours of lab

Skills to design a Windows Server 2008 Network Infrastructure that meets business and technical requirements for network services. Prerequisite: A grade of "C" or better in DNET 234, or consent of Instructional Unit. [GE]

MICROSOFT SERVER ADMINISTRATOR

DNET 236

6 Credits

44 hours of lecture

44 hours of lab

Windows Server 2008 provides administrators with powerful and flexible tools to overcome a multitude of administrative challenges to infrastructure, and management of complex server environments. Developing practical skills and experience to administer, troubleshoot and secure a Windows Server 2008 environment. Prerequisite: A grade of "C" or better in DNET 235, or consent of Instructional Unit. [GE]

DESKTOP SUPPORT TECHNICIAN

DNET 237

6 Credits

44 hours of lecture

44 hours of lab

Hands-on lab/lecture preparation for the Microsoft MCITP Exam 70-680: Windows 7 Desktop Support and Administration. Focus on doing a clean install, performing an upgrade, migrate user profiles, system imaging, pre-deployment, preparing a VHD, configure devices, application compatibility, networking (IPv4 and IPv6), firewall settings, remote management, backup and recovery. Prerequisite: A grade of "C" or better in DNET 232, or department approval. [GE]

CISCO CCNA 3: SWITCHING BASICS AND ADV ROUTING

DNET 241

6 Credits

44 hours of lecture

44 hours of lab

Third of four courses for Cisco CCNA certification: Advanced IP addressing techniques (Variable Length Subnet Masking [VLSM]), intermediate routing protocols (RIP v2, single-area OSPF, EIGRP), command-line interface configuration of switches, Ethernet switching, Virtual LANs (VLANs), Spanning Tree Protocol (STP), and VLAN Trunking Protocol (VTP). Particular emphasis on students' applying learning from CCNA 1 and 2 to a network and explaining how and why a particular strategy is employed. Prerequisite: A grade of "C" or better in DNET 231, or consent of Instructional Unit. [GE]

DATACENTER VIRTUALIZATION TECHNOLOGY

DNET 242

6 Credits

44 hours of lecture

44 hours of lab

Fundamentals of server and desktop virtualization. Topics include practical and conceptual skills for understanding basic virtualization concepts, comparison of physical servers and virtualized servers, skills for planning and implementing datacenter virtualization, the virtualized approach to datacenters with functions and services of their components, plus the various components, concepts and skill-sets associated with virtualization. Prerequisite: A grade of "C" or better in DNET 223 or CTEC 210, or consent of Instructional Unit. [GE]

CISCO CCNA 4: WAN TECHNOLOGIES

DNET 251

6 Credits

44 hours of lecture

44 hours of lab

Fourth of four courses for Cisco CCNA certification: Advanced IP addressing techniques (Network Address Translation [NAT], Port Address Translation [PAT], and DHCP), WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, network management, and introduction to optical networking. Particular emphasis on students' applying knowledge of CCNA 1, CCNA 2, and CCNA 3 to a network and explaining how and why a particular strategy is employed. Prepares students to take the CCNA Exam. Prerequisite: A grade of "C" or better in DNET 241, or consent of Instructional Unit. [GE]

PC TECHNICIAN A+ EXAM PREP

DNET 252

2 Credits

22 hours of lecture

Preparing for CompTIA's A+ exams. Not intended for those with little to no experience with the installation, preventative maintenance, networking, security, and troubleshooting of PC desktop systems. Activities include lecture, study aids, testing and role playing experiences to develop the knowledge and skills needed to pass the current A+ exams for technician certification. Prerequisite: A grade of "C" or better in DNET 232 or consent of Instructional Unit. [GE]

CISCO CCNA EXAM I PREP

DNET 255

2 Credits

22 hours of lecture

A fast-paced and comprehensive review of topics essential for successfully passing the Cisco CCNA INTRO exam. Successfully passing both the Cisco CCNA INTRO 7 ICND exams results in full Cisco CCNA industry certification. Topics include design and support, implementation, operation and technology. Prerequisite: A grade of "C" or better in DNET 121 and DNET 231, or consent of Instructional Unit. [GE]

CISCO CCNA EXAM II PREP

DNET 256

2 Credits

22 hours of lecture

A fast-paced and comprehensive review of topics essential for successfully passing the Cisco CCNA ICND exam. Successfully passing both the Cisco CCNA INTRO & ICND exams results in full Cisco CCNA industry certification. Topics include planning and designing, implementation and operations, troubleshooting and technology. Prerequisite: A grade of "C" or better in DNET 241 and DNET 251, or consent of Instructional Unit. [GE]

CISCO NETWORK SECURITY I

DNET 261

6 Credits

44 hours of lecture

44 hours of lab

Introduction to the use of Cisco PIX, Secure Router, and switch technologies for overall security processes emphasizing hands-on skills in the areas of secure perimeter, secure connectivity, security management, identify services, and intrusion detection. Prerequisite: A grade of "C" or better in DNET 231 and CTEC 230, or consent of Instructional Unit. [GE]

CISCO NETWORK SECURITY II

DNET 271

6 Credits

44 hours of lecture

44 hours of lab

Advanced application of Cisco PIX, Secure Router, and switch technologies for overall security processes emphasizing hands-on skills in the areas of secure perimeter, secure connectivity, security management, identify services, and intrusion detection. Prerequisite: A grade of "C" or better in DNET 261, or consent of Instructional Unit. [GE]

SELECTED TOPICS

DNET 280

1 - 5 Credits

55 hours of lecture

Topics vary. May be repeated for credit. Prerequisite: Consent of Instructional Unit. [GE]

SPECIAL PROJECTS

DNET 290

1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

CAPSTONE EXPERIENCE

DNET 299

3 Credits

11 hours of lecture

44 hours of lab

CAPSTONE course in the DNET AAS and AAT degree programs at Clark College, normally taken during the final quarter of the program. Application of many topics covered in the other program courses in a simulated employee team or small group setting. Introduction to the experience of designing an enterprise network using required documentation of design and implementation. Topics include all aspects of network planning, design, and troubleshooting. Prerequisite: MCITP Server certification or CCNA certification, completion of all required core coursework related degree, and consent of Instructional Unit.

Nursing

FOUNDATIONS OF PROFESSIONAL NURSING

NURS 110

3 Credits

33 hours of lecture

Introduction to professional nursing; topics include health promotion and health care delivery systems, professional roles and standards, nurse-client relationships, and theoretical basis for nursing practice. Concurrent enrollment in NURS 111, 113, 114, and 115. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: Consent of Instructional Unit. [GE]

FOUNDATIONS OF NURSING PRACTICE

NURS 111 4 Credits
88 hours of lab

Introduction to nursing practice in the community setting with emphasis on direct patient care of the older adult. Concurrent enrollment is required in NURS 110, 113, 114, and 115. Prerequisite: Consent of the Instructional Unit. [GE]

PROFESSIONAL NURSING SKILLS I

NURS 113 2 Credits
22 hours of lecture

Introduction to health assessment, nursing skills, clinical simulation, and entry level NAC competency testing. Concurrent enrollment in NURS 110, 111, 114 and 115. Prerequisite: Consent of the Instructional Unit required. [GE]

NURSING SKILLS PRACTICE I

NURS 114 1 Credits
22 hours of lab

Practice and nursing skill achievement on NURS 113 competencies. Concurrent enrollment in NURS 110, 111, 113 and 115. Prerequisite: Consent of the Instructional Unit. [GE]

NURSING COMPETENCIES AND SIMULATION

NURS 115 2 Credits
44 hours of lab

Practice in the nursing skills lab under supervision at the first year nursing student level. [GE]

NURSING CONCEPTS I

NURS 120 2 Credits
22 hours of lecture

Introduction to nursing management of health problems, including fluid and electrolytes, the immune and musculoskeletal systems, and the peri-operative period in the acute care of community setting. Planning client care to include prevention of disease, promotion of wellness, and intervention in emotional and physical response to acute and chronic illness. Concurrent enrollment in NURS 121, 125 126 and 127. Prerequisite: A grade of "C" or above in NURS 110 or consent of the Instructional Unit. [GE]

NURSING CONCEPTS IN PRACTICE I

NURS 121 4 Credits
88 hours of lab

Introduction to medical/surgical concepts with emphasis on the management of the client in an acute and community setting. Concurrent enrollment in NURS 120, 125, 126 and 127. Prerequisite: A grade of "C" or above in NURS 110 or consent of the Instructional Unit. [GE]

NURSING COMPETENCIES AND SIMULATION

NURS 125 2 Credits
44 hours of lab

Practice in the nursing skills lab under supervision at the first year nursing student level. Concurrent enrollment in NURS 120, 121, 126 and 127. [GE]

PROFESSIONAL NURSING SKILLS II

NURS 126 1 Credits
11 hours of lecture

Intermediate nursing skills for peri-operative and wound care. Concurrent enrollment in NURS 120, 121, 125 and 127 required. Prerequisite: A grade of "C" or better in NURS 110 or consent of the Instructional Unit. [GE]

NURSING SKILLS PRACTICE II

NURS 127

1 Credits

22 hours of lab

Practice and nursing skill achievement on NURS 126 competencies. Concurrent enrollment in NURS 120, 121, 125 and 126. Prerequisite: A grade of "C" or above in NURS 110 or consent of the Instructional Unit. [GE]

FAMILY-CENTERED NURSING

NURS 130

2 Credits

22 hours of lecture

Theory and the nursing process related to care of children and their families. Physiologic and psychological adaptation during the childbearing and childrearing years; emphasis on the nurse's role in health promotion and education in the care of culturally diverse families in the community. Concurrent enrollment in NURS 131 and 132. Prerequisite: A grade of "C" or above in NURS 120 and 126 or consent of Instructional Unit. [GE]

NURSING CARE OF THE EMERGING FAMILY

NURS 131

4 Credits

88 hours of lab

Application of theoretical, assessment, and practice concepts for nursing care of intrapartum and postpartum women and newborn infants. Concurrent enrollment in NURS 130 and 132. Prerequisite: A grade of "C" or above in NURS 120 or consent of the Instructional Unit. [GE]

NURSING CARE OF THE CHILD

NURS 132

4 Credits

88 hours of lab

Application of theoretical, assessment, and practice concepts for nursing care of children. Concurrent enrollment in NURS 130 and 131. Prerequisite: A grade of "C" or above in NURS 120 or consent of the Instructional Unit. [GE]

FAMILY CENTERED NURSING SKILLS

NURS 133

1 Credits

22 hours of lab

Simulation of beginning and intermediate nursing concepts with emphasis on client management. Concurrent enrollment in NURS 130, 131, and 132 required. Prerequisite: A grade of "C" or better in NURS 120 or consent of Instructional Unit. [GE]

SELECTED TOPICS-LEVEL II

NURS 150

1 - 15 Credits

Independent study modules to meet needs of the student. Course contents may be drawn from any of the Level I and II nursing courses. Credit will be based upon contracted work in keeping with college policies. Credit is not applicable toward a nursing major at Clark College. Prerequisite: Consent of nursing director. [GE]

LPN TO RN BRIDGE

NURS 200

7 Credits

66 hours of lecture

22 hours of lab

Overview of nursing with emphasis on professional foundations, nursing process, pathophysiology, medication administration and review of principles and techniques of nursing care common to all clients. A scope of practice focus for LPN to RN role transition is included in this bridge course. Review of maternity and pediatric content as well as computer research as it relates to pathophysiology. Instructional methods include two weeks of classroom sessions, group discussions, group learning activities, nursing skills lab activities, eLearning projects, written assignments, oral presentation, and independent study. Students enrolled in the Clark College Nursing program are building a sound base of knowledge and developing critical thinking skills needed to effectively use that knowledge in their daily lives as well as in their clinical practice.

NURSING CONCEPTS II

NURS 210

3 Credits

33 hours of lecture

Nursing management of health problems involving cardiac, respiratory, renal and gastrointestinal systems in the

acute care or community setting. Planning nursing interventions to include prevention of disease and promotion of wellness. Emphasis on the biopsychosocial effects of acute and chronic illness. Concurrent enrollment in NURS 211 and 212. Prerequisite: A grade of "C" or above in BIOL 240, ENGL 102, NUTR 103, PSYC 211, and NURS 130 or consent of the Instructional Unit. [GE]

NURSING CONCEPTS IN PRACTICE II

NURS 211

8 Credits

176 hours of lab

Advanced medical/surgical concepts with emphasis on the management of the acutely ill client. Concurrent enrollment in NURS 210 and 212. Prerequisite: A grade of "C" or above in BIOL 240, ENGL 102, NUTR 103, PSYC 211, and NURS 130 or consent of the Instructional Unit. [GE]

NURSING SKILLS PRACTICE III

NURS 212

1 Credits

22 hours of lab

Simulation of advanced medical/surgical concepts with emphasis on the management of the acutely ill client. Concurrent enrollment in NURS 210 and 211. Prerequisite: A grade of "C" or above in BIOL 240, ENGL 102, NUTR 103, PSYC 211, and NURS 130 or consent of the Instructional Unit. [GE]

NURSING CONCEPTS III

NURS 220

2 Credits

22 hours of lecture

Advanced nursing concepts with emphasis on the organization of multiple patients. Nursing management of patients with health problems related to regulation and metabolism, sensory, perception, cognition, and mobility in the acute care or community setting. Concurrent enrollment in NURS 221, 222 and 223. Prerequisite: A grade of "C" or better in NURS 210 or consent of Instructional Unit. [GE]

NURSING CONCEPTS IN PRACTICE III

NURS 221

4 Credits

88 hours of lab

Designed to provide the student the opportunity to put into practice previously learned skills learning to manage care for a group of clients. Concurrent enrollment in NURS 220, 222 and 223. Prerequisite: A grade of "C" or above in NURS 210 or consent of the Instructional Unit. [GE]

MENTAL HEALTH CONCEPTS

NURS 222

2 Credits

22 hours of lecture

Mental health concepts related to biopsychosocial disorders. Care of the client with psychiatric disorders, using mental health promotion strategies based on theories of stress and adaption and the mind-body connection. Concurrent enrollment in NURS 223. Prerequisite: A grade of "C" or above in NURS 210 or consent of the Instructional Unit. [GE]

MENTAL HEALTH IN PRACTICE

NURS 223

4 Credits

88 hours of lab

Care of the client with mental illness in the community. Clinical experience in both acute care inpatient and community outpatient settings. Concurrent enrollment in NURS 220, 221 and 222. Prerequisite: A grade of "C" or above in NURS 210 or consent of the Instructional Unit. [GE]

NURSING SKILLS PRACTICE II

NURS 225

1 - 10 Credits

220 hours of lab

Practice in the nursing skills lab under supervision at the second year nursing level. [GE]

PROFESSIONAL LEADERSHIP

NURS 230 2 Credits
22 hours of lecture

Theory and application of leadership and management principles in the clinical setting. Topics include professional and ethical issues in nursing. Concurrent enrollment in NURS 231 and 232. Prerequisite: A grade of "C" or above in NURS 220 and 222 or consent of the Instructional Unit. [GE]

PROFESSIONAL LEADERSHIP IN PRACTICE

NURS 231 8 Credits
176 hours of lab

Advanced client care practice in a specialty area of the student's interest. Clinical areas include acute and community settings. Emphasis on developing leadership abilities as a professional nurse. Concurrent enrollment in NURS 230 and 232. Prerequisite: A grade of "C" or above in NURS 220 and 222 or consent of the Instructional Unit. [GE]

PROFESSIONAL ROLE IN THE COMMUNITY

NURS 232 1 Credits
22 hours of lab

Advanced simulation activities include mentorship and leadership/management of novice peers. Additional focus on community service and community volunteerism. Concurrent enrollment in NURS 230 and 231. Prerequisite: A grade of "C" or above in NURS 220 and 222 or consent of the Instructional Unit. [GE]

SELECTED TOPICS-LEVEL III

NURS 250 1 - 15 Credits

Independent study modules designed to meet student specialized needs. Content may be drawn from any of the associate degree nursing courses. Credit will be based upon contracted work in keeping with college policies. Credit is not applicable toward a nursing major at Clark College. Prerequisite: consent of nursing director. [GE]

SPECIAL PROJECTS

NURS 290 1 - 15 Credits

Opportunity to plan, organize and complete special projects approved by the faculty of the department. Prerequisite: Consent of Instructional Unit. [GE]

Nursing Assistant Certified

NURSING ASSISTANT FOUNDATIONS

NAC 101 6 Credits
66 hours of lecture

Study and practice in preparation for the Washington state certification examination as a nursing assistant. Topics include anatomy and physiology, resident rights, concepts of death and dying, dementia care, legal aspects of care, scope of practice of the nursing assistant, function of the health care team, communication skills, infection control, safety and emergency procedures, and restorative care. Concurrent enrollment in NAC 102 is required. [GE]

NURSING ASSISTANT CLINICAL EXPERIENCE

NAC 102 3 Credits
66 hours of lab

Supervised clinical experience for Nursing Assistants in long term care settings. Concurrent enrollment in NAC 101 is required. [GE]

NURSING ASSISTANT FOUNDATIONS/CLINICAL

NAC 103 9 Credits
66 hours of lecture 66 hours of lab

Study and practice in preparation for the Washington state certification examination as a nursing assistant. Topics include anatomy and physiology, resident rights, concepts of death and dying, dementia care, legal aspects of care, scope of practice of the nursing assistant, function of the health care team, communication skills, infection control, safety and emergency procedures, and restorative care. Includes supervised clinical experience for Nursing Assis-

tants in long term care settings. Prerequisite: Successful completion of, or concurrent enrollment in FACPR 032, or consent of Instructional Unit. [GE]

SELECTED TOPICS

NAC 280

1 - 10 Credits

110 hours of lecture

Varying topics in the Nursing Assistant Certified program, as listed in the quarterly class schedule. May be repeated for credit. Prerequisite: Consent of Instructional Unit. [GE]

Nutrition

GENERAL NUTRITION

NUTR 103

3 Credits

33 hours of lecture

Nutrition of healthy human beings. Principles of balanced nutrition, physiology and metabolism of nutrients, and changing nutritional needs throughout the human life span. Prerequisite: A grade of "C" or better in CHEM 111 or higher. [NS, SE]

Paralegal

INTRODUCTION TO LEGAL THEORY

PRLE 101

3 Credits

33 hours of lecture

Introduction to the origin of our legal system and the theories giving rise to our common law, civil law, and statutory law systems, with emphasis on legal terminology in our contemporary legal system. Review of the court system with emphasis on our state courts and an overview of substantive law. [GE]

LEGAL ETHICS

PRLE 102

3 Credits

33 hours of lecture

Introduction to legal ethics, a study of issues: respecting client confidentiality, protecting a client's privileged communications, avoiding conflicts of interests, and avoiding unauthorized practice of law. Exploration of other ethical issues regarding legal fees and fee sharing arrangements, advertising and solicitation, and competence and honesty. [GE]

LEGAL RESEARCH

PRLE 103

3 Credits

22 hours of lecture

22 hours of lab

Legal research terminology and legal research strategies. Topics include efficient techniques to locate state and federal legal information by citation; locate search tools; update validity of legal resources; construct appropriate legal citations using ALWD Citation Manual style; develop a research strategy to efficiently and productively research a given legal issue. Prerequisite: PRLE 101 required and PRLE 102 recommended. [GE]

LEGAL WRITING I

PRLE 106

3 Credits

33 hours of lecture

Introduction to the basics of technical legal writing and the relationship of legal writing to legal analytical thought. Guidance through both theoretical and practical applications of writing. Focus on straight forward language. Prerequisite: PRLE 101. [GE]

CIVIL LITIGATION AND PROCEDURES

PRLE 109

3 Credits

33 hours of lecture

The litigation process, with emphasis on the law of torts and civil litigation including client and witness interviews, pleadings preparation, investigation, and appeal procedures. Prior completion of PRLE 102 and 104 recommended. Prerequisite: A grade of "C" or better in PRLE 106. [GE]

CRIMINAL LAW AND PROCEDURES

PRLE 110

3 Credits

33 hours of lecture

The litigation process, with emphasis on criminal law including client and witness interviews, pleadings preparation, investigation and appeals preparation. Study of general criminal law and procedures to provide a basic understanding of the criminal justice system. Prior completion of PRLE 102 and 104 recommended. Prerequisite: A grade of "C" or better in PRLE 106. [GE]

LAW OFFICE PROCEDURES AND COMPUTER TECHNOLOGY

PRLE 115

3 Credits

33 hours of lecture

Law office organization, specialized recordkeeping, law office computer applications (software in data management, storage and calendar controls), and accounting, scheduling, filing, management of personnel and other aspects of law office management. PRLE 102 recommended. [GE]

INTERVIEWING, INVESTIGATION AND EVIDENCE

PRLE 150

3 Credits

33 hours of lecture

Strategies, techniques and tactics for interviewing witnesses and clients including investigation procedures, collecting evidence and preparation of complete reports for the attorney. Students will understand, review and apply Rules of Evidence. Prerequisite: CMST& 210 or 230 (or CMST 201 or 211) and PRLE 103 recommended. [GE]

LEGAL DOCUMENT PREPARATION

PRLE 151

3 Credits

33 hours of lecture

Preparation of legal documents, legal terminology, and court rules and procedures as applied to general areas of law. Ability to type 40 wpm is recommended. Prerequisite: PRLE 101,102 and BTEC 122 or 125 or consent of Instructional Unit. [GE]

COMPUTER RESEARCH IN LAW

PRLE 203

3 Credits

22 hours of lecture

22 hours of lab

Survey of legal research terminology, electronic legal resources, and research strategies. Students will learn to locate state and federal legal information by citation through finding tools, utilize research strategies to efficiently locate non-legal information of interest to the legal researcher, evaluate the validity of electronic sources, and construct appropriate electronic sources. Prerequisite: A grade of "C" or better in PRLE 103 and 106. [GE]

FAMILY LAW

PRLE 204

3 Credits

33 hours of lecture

Law and theory relating to dissolutions of marriage, legal separation, parenting/custody agreements, prenuptials, antenuptial agreements, adoptions, child support, change of name, and post-divorce issues such as maintenance modification, child support modification, and parenting plan modifications. Prerequisite: PRLE 101 and PRLE 151. [GE]

ESTATE PLANNING AND PROBATE LAW

PRLE 205

3 Credits

33 hours of lecture

Law and theory of estate planning, probate, and options of probate with emphasis on wills, trusts, community property agreements, gifts, estate taxation, probate procedures, administration and accounting. Prerequisite: A grade of "C" or better in PRLE 101. [GE]

REAL ESTATE AND PROPERTY LAW

PRLE 206

3 Credits

33 hours of lecture

Law of personal and real property with emphasis on common types of real estate transactions and conveyances such

as deeds, contracts, leases, deeds of trust, liens, zoning agreements, assessments, searches and foreclosures. Drafting of conveyance instruments and methods of recording and searching public records. Prerequisite: A grade of “C” or better in PRLE 101 and 106. [GE]

BUSINESS ORGANIZATIONS

PRLE 207

3 Credits

33 hours of lecture

Significant state law regarding corporations and partnerships, preparation and filing of corporate documents, partnership agreements, conduct of corporate shareholder and director meetings, corporate distributions, commercial litigation, secured transactions. Prerequisite: A grade of “C” or better in PRLE 101 and PRLE 103. [GE]

BANKRUPTCY LAW

PRLE 208

3 Credits

33 hours of lecture

Introduction to bankruptcy procedures including filing of initial petition, selection of appropriate relief, meeting of creditors, adversarial proceedings, the final discharge hearing, and automatic stay. Analysis of relief available under Chapter 7, 11, 12, and 13 of the United States Bankruptcy code. Prerequisite: A grade of “C” or better in PRLE 101, 102, 103, 106 and 115. [GE]

INSURANCE CLAIMS CASE PREPARATION

PRLE 209

3 Credits

33 hours of lecture

Introduction to case management theory, using a “walk-through” personal injury action and preparation/handling of insurance claim(s) on behalf of a civil plaintiff. A complete preparation of a legal case, from intake to litigation including applicable legal terminology, court rules and procedures. Emphasis on the practices of law surrounding insurance claims and policies related to a civil action. Prerequisite: A grade of “C” or better in PRLE 106 and 151 or consent of Instructional Unit. [GE]

LEGAL WRITING II

PRLE 210

3 Credits

33 hours of lecture

Methods of legal research and legal writing. Application of research and analysis skills learned in PRLE 103 Legal Research and PRLE 203 Computer Research in Law. Continuation of the writing skills learned in PRLE 106 Legal Writing I. Focus on skills to research more intricate issues of law in a more accurate and precise method, with emphasis on preparing complex legal documents such as an interoffice Memorandum, Memorandum in Support of Motion and other types of legal documents, including the Appellate Brief. Prerequisite: A grade of “C” or better in BTEC 122 Word for Business, PRLE 103 Legal Research, PRLE 203 Computer Research in Law and PRLE 106 Legal Writing. [GE]

TORT LAW AND PROCEDURES

PRLE 211

3 Credits

33 hours of lecture

Resolution of personal injury claims with insurance companies, social security and workers’ compensation claims, with emphasis on the interpretation of insurance policies and the procedures for processing claims and effecting settlements. Methods for identifying workers’ compensation and social security claims, as well as the filing and processing of these claims through the applicable state and federal administrative law procedures. Prerequisite: A grade of “C” or better in PRLE 106. [GE]

LAW AND ECONOMICS

PRLE 212

3 Credits

33 hours of lecture

Legal rules, regulations and precedent interact with market mechanics and influence the allocation of resources. Focus on the common law property, contract and tort area, methods to explain, predict and evaluate such areas as a means to predict future outcomes and evaluate their potential impact upon societal welfare. Topics include relevant economic theories in conjunction with individual court cases to emphasize how the subtleties of the theory connect

with key facts of the case. Course methodology develops the economic theory in the context of legal problems via point by point analysis. [GE]

SELECTED TOPICS

PRLE 280 1 - 3 Credits
33 hours of lecture

Varying topics for the paralegal profession as listed in the quarterly class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS

PRLE 290 1 - 5 Credits

Opportunity for students to plan, organize and complete special projects approved by the department. Contact the instructional dean, division chair or your instructor for more information or to make arrangements to register for Special Project credits in this department. (Note: special project closely supervised by the instructor. Student must create written plan, select an instructor and petition for Departmental approval.) Consent of Instructional Unit. [GE]

CASA SPECIAL PROJECT

PRLE 295 1 - 5 Credits

Court Appointed Special Advocate (CASA) Internship Project: a specialized Internship. Supervised, community service learning experience as trained, court appointed child advocate. Must complete thirty or more hours in CASA training and minimum one year commitment as a court appointed child advocate. No set requirement for hours worked per week, which is to be determined by the student and CASA. Work sites include the YWCA, Clark County courts, and other related off-site locations necessary for CASA program work. Prerequisite: Consent of Instructional Unit. Must receive admission into the Vancouver YWCA's Court CASA program. Must pass background check. [GE]

PARALEGAL INTERNSHIP

PRLE 299 1 - 3 Credits

Attorney-supervised work-based learning experience in a law office or other legal facility for paralegal internship. A capstone including a scheduled internship. Credits/grades based on hours worked, work performance, and completion of learning objectives specified in a learning contract (demonstrated adequate skills and professionalism) and completion of Seminar "Paralegal Information Night". Prerequisite: Department Chair approval required, based on completion of core paralegal courses (all PRLE and BUS& 201).

Pharmacy Technician

OVERVIEW OF PHARMACY

PHAR 100 2 Credits
22 hours of lecture

Overview of pharmacy with particular focus on the technician in pharmacy practice settings including job roles, resources and ethical standards of practice. [GE]

A MINI DOSE OF PHARMACY

PHAR 101 1 Credits
11 hours of lecture

A preview of the practice of pharmacy. Identifies the role of the pharmacy tech, explores various pharmacy practice settings for employment, beginning basics of the language of pharmacy, both in written and oral forms. [GE]

INTRODUCTION TO PHARMACY

PHAR 105 4 Credits
44 hours of lecture

Introduction to the role of the pharmacy technician in a variety of pharmacy practice settings including history, personnel, resources, and ethical standards of pharmacy practice. Prerequisite: A grade of "C" or better in BMED 110 and consent of Instructional Unit. [GE]

PHARMACY CALCULATIONS

PHAR 110 3 Credits

33 hours of lecture

Basic math and arithmetic skills as they relate to pharmacy practice. Calculations and manipulations of metrics and related dosages. Pharmacy topics related to mathematical functions are emphasized. Prerequisite: Consent of HEOC advisor. [GE]

PHARMACOLOGY I

PHAR 112 5 Credits

55 hours of lecture

First of 2-quarter sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy, with focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antibiotics, analgesics, autonomic system, cardiovascular and respiratory drugs. Prerequisite: A grade of "C" or better in PHAR 105. [GE]

PHARMACY PRACTICE AND TECHNOLOGY

PHAR 114 4 Credits

33 hours of lecture

22 hours of lab

Pharmacy skills and knowledge essentials to the practice of pharmacy at the work site. Topics include correlation of terminology, computer system manipulation, use of current and emerging technology, and practical application of pharmacy dispensing activities. Prerequisite: Consent of HEOC advisor. [GE]

PHARMACY EXTERNSHIP I

PHAR 118 4 Credits

132 hours of clinical

Practical on-the-job instruction in the knowledge base required of a pharmacy assistant (technician) in the work force. Community pharmacies/facilities will be used for this course. Concurrent enrollment in PHAR 119 required. Prerequisite: A grade of "C" or better in PHAR 105 and consent of Instructional Unit. [GE]

PHARMACY EXTERNSHIP SEMINAR I

PHAR 119 2 Credits

22 hours of lecture

11 hours of lab

First of 2-quarter sequence coordinating with PHAR 118 externship experience at work site. Topics include professionalism, productivity, handling challenging situations, and continuing education, with emphasis on success in the workplace. Group work, case study analysis, journal entries and a final written paper are required. Concurrent enrollment in PHAR 118 and written consent of Instructional Unit. [GE]

PHARMACOLOGY II

PHAR 122 5 Credits

55 hours of lecture

Second of 2-quarter sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy. Focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antidepressants and anti-anxiety agents, antipsychotics, anticonvulsants and other CNS disorder agents, hormone therapy, chemotherapy, antiretrovirals, as well as topicals, ophthalmics and otics. Prerequisite: Completion of PHAR 112 and written consent of the Instructional Unit required. [GE]

PHARMACY LAW

PHAR 123 2 Credits

22 hours of lecture

State and federal laws and regulations that pertain to the duties of pharmacy technicians. Revised Code of Washington and Washington Administrative Codes will be reviewed. Prerequisite: written consent of Instructional Unit required. [GE]

OVER-THE-COUNTER DRUGS

PHAR 125 3 Credits

33 hours of lecture

Medications available to patients without prescription. Particular attention to those medications that have changed from legend to non-prescription products and those most frequently carried by local pharmacies. Prerequisite: written consent of instructional unit required. [GE]

PHARMACY COMPOUNDING

PHAR 127 4 Credits

33 hours of lecture 22 hours of lab

Overview of sterile products and aseptic technique for compounding of sterile products, intravenous (IV) drug delivery systems and equipment related to compounding and administration of IV products. Combination of lecture and lab projects. [GE]

PHARMACY EXTERNSHIP II

PHAR 128 4 Credits

132 hours of clinical

Continued practical, on-the-job instruction in the knowledge base required of a pharmacy (technician) in the work force. Concurrent enrollment in PHAR 129 required. Prerequisite: Completion of PHAR 105 and written consent of Instructional Unit required. [GE]

PHARMACY EXTERNSHIP SEMINAR II

PHAR 129 2 Credits

22 hours of lecture

Second of 2-quarter sequence coordinating with PHAR 128 externship experience. Topics include work ethics, interpersonal communication, problem solving, and success in the work place emphasized. Components include group work, case study analysis, journal entries and a final written and oral project. Concurrent enrollment in PHAR 128 and written consent of Instructional Unit required. [GE]

Philosophy

INTRODUCTION TO PHILOSOPHY

PHIL& 101 5 Credits

55 hours of lecture

Some of the great themes and major figures of Western philosophy. [HA, SE]

INTRODUCTION TO LOGIC

PHIL& 106 5 Credits

55 hours of lecture

Rigorous examination of logical theory emphasizing modern symbolic or formal logic, including truth-functional logic, propositional logic with proofs, predicate logic with quantifiers and proofs. Applications include computer science, cognitive science, artificial intelligence, linguistics, and mathematics, and philosophy. [HA, SE]

TRADITIONAL LOGIC

PHIL& 117 5 Credits

55 hours of lecture

Focus on sentence logic with proofs and Aristotelian logic with Venn Diagrams. Includes formulation of propositions, logical inference, syllogisms (categorical, hypothetical, etc.), and fallacies.

INTRODUCTION TO LATE MODERN PHILOSOPHY

PHIL 117 5 Credits

55 hours of lecture

Selected major thinkers and ideas of the nineteenth and twentieth century, including Kant and Hegel. Focus on various philosophical movements related to Kant and Hegel: existentialism, process philosophy, Marx, Schopenhauer, positivism, and the pragmatism. [HA, SE]

INTRODUCTION TO LOGIC

PHIL& 120

5 Credits

55 hours of lecture

Rigorous examination of logical theory emphasizing modern symbolic or formal logic, including truth-functional logic, propositional logic with proofs, predicate logic with quantifiers and proofs. Applications include computer science, cognitive science, artificial intelligence, linguistics, mathematics, and philosophy. Successful completion of MATH 093, or 095, or eligibility for college level math strongly recommended.

INTRODUCTION TO ANCIENT AND MEDIEVAL PHILOSOPHY

PHIL 215

5 Credits

55 hours of lecture

Introduction to ancient Western philosophy from its Greek roots, through its development in Socrates, Plato, and Aristotle, and to its adaptations into Christian thought, with special emphasis of Augustine and Aquinas. [HA, SE]

INTRODUCTION TO EARLY MODERN PHILOSOPHY

PHIL 216

5 Credits

55 hours of lecture

Introduction to selected great thinkers and ideas of the sixteenth, seventeenth and eighteenth centuries, including the collapse of the medieval synthesis leading to the rise of the modern scientific mentality, followed by an examination of the philosophical struggle between the rationalism and the empiricism. [HA, SE]

INTRODUCTION TO LATE MODERN PHILOSOPHY

PHIL 217

5 Credits

55 hours of lecture

Selected major thinkers and ideas of the nineteenth and twentieth century, including Kant and Hegel. Focus on various philosophical movements related to Kant and Hegel: existentialism, process philosophy, Marx, Schopenhauer, positivism, and the pragmatism. [HA, SE]

ETHICS

PHIL 240

5 Credits

55 hours of lecture

Theories of morality from ancient times to the present, with attention to both practical and theoretical issues. The relationship between ethics and other areas of philosophy. [HA, SE]

PHILOSOPHY OF RELIGION

PHIL 251

5 Credits

55 hours of lecture

Exploration of the nature of the religious experience, the difficulties inherent in the use of religious language, the classical proofs for the existence of God, the relationship between faith and reason, and the problem of evil. [HA, SE]

SELECTED TOPICS

PHIL 280

1 - 3 Credits

33 hours of lecture

Varying topics in philosophy, as listed in the quarterly class schedule. May be repeated for credit. [HA, SE]

SPECIAL PROJECTS

PHIL 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Completion of two philosophy courses and consent of Instructional Unit. [HA, GE]

Physical Education

CARDIO CONDITIONING

PE 100

1 Credits

22 hours of lab

Basic group exercise to music, primarily targeting cardiovascular conditioning. [PE, SE]

FITNESS WALKING

PE 102

1 - 2 Credits

44 hours of lab

Emphasis on walking programs, including interval training, power walking, and race walking. Walking technique and health benefits also discussed. [PE, SE]

BENCH STEP AEROBICS

PE 103

1 Credits

22 hours of lab

Introduction to high-intensity/low impact exercise promoting overall body strength and cardiovascular fitness that involves stepping up and down on a bench step platform to music. [PE, SE]

CIRCUIT FITNESS

PE 104

1 - 2 Credits

44 hours of lab

An individualized systematic approach to cardiovascular fitness through the use of multiple weight machines and aerobic equipment. Pre and post fitness assessments conducted. Students must earn 2 credits of PE 104 before advancing to PE 105. [PE, SE]

CIRCUIT FITNESS

PE 105

1 - 2 Credits

44 hours of lab

An individualized systematic approach to cardiovascular fitness through the use of multiple weight machines and aerobic equipment. Pre and post fitness assessments conducted. Prerequisite: Two credits of PE 104. [PE, SE]

CIRCUIT FITNESS

PE 106

1 - 2 Credits

44 hours of lab

An individualized systematic approach to cardiovascular fitness through the use of multiple weight machines and aerobic equipment. Pre and post fitness assessments conducted. Prerequisite: 2 credits of PE 105. [PE, SE]

SPEED, AGILITY, AND QUICKNESS

PE 107

1 Credits

22 hours of lab

Focuses on biomechanics of running, development of speed, agility and personal quickness. Learning of drills and enhancement of skills to improve personal performance. [PE, SE]

INDEPENDENT FITNESS PROGRAM

PE 108

1 - 2 Credits

44 hours of lab

A self-paced conditioning course for the motivated, self-directed student. Design, implement and document a goal-oriented fitness program with instructor advice and approval. Areas of concentration will be the three components of fitness: Cardiovascular endurance, muscular strength and muscular flexibility training. [PE, SE]

MARTIAL ARTS: TAE KWON DO

PE 109A

1 Credits

22 hours of lab

Tae Kwon Do is a Korean martial art that predominately focuses on kicking. Students must purchase a uniform for this class. [PE, SE]

MARTIAL ARTS: KUNG FU

PE 109B

1 Credits

22 hours of lab

Kung Fu is a Chinese method of self-defense. Covers history and philosophy, basic strikes, blocks, and escapes from various attacks and grabs. Students must purchase a uniform for this class. [PE, SE]

MARTIAL ARTS: JUDO

PE 109D

1 Credits

22 hours of lab

Judo is a Japanese martial art focused on throwing, where students learning falling techniques, basic takedowns, escapes, and joint locks. Students must purchase a uniform for this class. [PE, SE]

SELF DEFENSE

PE 110

1 Credits

22 hours of lab

This course is designed to teach the student basic self-defense techniques as well as situational awareness through class participation and discussion. [PE, SE]

CORE CONDITIONING

PE 111

1 Credits

22 hours of lab

Focus on engaging the core area to improve posture and muscular endurance for everyday movement. [PE, SE]

STONE AND TRIM

PE 112

1 Credits

22 hours of lab

Stretching exercise class (with music) to improve muscle tone, posture, flexibility and general fitness with emphasis on increased abdominal and back strength. [PE, SE]

TOTAL BODY CONDITIONING

PE 113

2 Credits

44 hours of lab

Students will use fitness center equipment and a variety of conditioning activities to develop cardiovascular endurance, muscular strength, and flexibility. Course will emphasize how to structure an exercise plan to meet individualized goals. [PE, SE]

WEIGHT TRAINING-GENERAL I

PE 115

1 Credits

22 hours of lab

Strength development through basic exercise and lift techniques. Beginning theories and techniques in fitness conditioning, body building, and power lifting. [PE, SE]

FITNESS CENTER BASICS

PE 116

1 Credits

22 hours of lab

Introduction to the fundamental skills necessary to implement a physical activity program in a fitness center setting. Students develop and implement an exercise program appropriate to their fitness level and individual needs using a variety of cardiovascular and resistance machines. [PE, SE]

WEIGHT TRAINING-POWER LIFTING I

PE 117

2 Credits

44 hours of lab

Conditioning class for students interested in strength improvement through heavy resistance training. The Olympic lifts along with numerous power/speed lifts will be performed for personal improvement in various fitness parameters. [PE, SE]

CARDIO KICKBOXING-BEGINNING

PE 120

1 Credits

22 hours of lab

Combination of aerobic dance and martial arts, including American Kickboxing and Thai Boxing, in a format that increases cardiovascular endurance, sharpens reflexes and enhances power. [PE, SE]

YOGA	
PE 121	1 Credits
22 hours of lab	
Introduction to hatha yoga (physical yoga) with an emphasis on postures, breathing and body-mind centering. [PE, SE]	
T'AI CHI	
PE 122	1 Credits
22 hours of lab	
T'ai Chi is an ancient form of mental and spiritual discipline developed in China. The movements of the t'ai chi form are slow and deliberate, helping with relaxation, focus, strengthening, and balance. [PE, SE]	
HEALTHY HEART-BEGINNING	
PE 123	1 Credits
22 hours of lab	
Cardiac prevention and rehabilitation exercise: designed to promote awareness and practice of exercise, nutrition, and stress. Skills in dealing with pre- and post-cardiac trauma. [GE, SE]	
PILATES-BEGINNING	
PE 124	1 Credits
22 hours of lab	
Methods of conditioning covers the basic principles and exercise technique needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. [PE, SE]	
ROCK CLIMBING	
PE 125	1 Credits
22 hours of lab	
Basics of rock climbing. Focus on belay techniques and knot tying skills along with the essential styles of climbing safety and efficiently.	
BOOT CAMP-BEGINNING	
PE 129	2 Credits
44 hours of lab	
Introduction to physical fitness for military purposes; emphasis on basic conditioning and discipline. This course is open to all students. [PE, SE]	
BALLET-BEGINNING	
PE 130	1 Credits
22 hours of lab	
Beginning ballet technique including barre and centre work. [PE, SE]	
BALLROOM DANCE: SMOOTH	
PE 131A	1 Credits
22 hours of lab	
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Smooth style dances include waltz, tango, fox trot, quick step and Viennese waltz. [PE, SE]	
BALLROOM DANCE: LATIN	
PE 131B	1 Credits
22 hours of lab	
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin dance sections will include: mambo, cha cha, rhumba, samba, and salsa. [PE, SE]	
CONTEMPORARY DANCE	
PE 133	1 Credits
22 hours of lab	
Fundamentals and techniques of modern dance and rhythmic self-expression. [PE, SE]	

MODERN JAZZ

PE 134

1 Credits

22 hours of lab

Beginning Modern Jazz technique. Students will study fundamental moves and learn a routine. [PE, SE]

SWING DANCE-BEGINNING

PE 135

1 Credits

22 hours of lab

Basic patterns and partnering skills for East Coast Swing (jive), West Coast Swing (hustle), and Lindy Hop. Course covers dance technique, partnering skills, patterns and music identification. [PE, SE]

HIP-HOP DANCE

PE 137

1 Credits

22 hours of lab

Introduction to basic dance techniques, floor combinations, balance, and longer dance routines of hip hop dance. Develop confidence and skill through practice. [PE, SE]

BELLY DANCE

PE 139

1 Credits

22 hours of lab

Gain knowledge of movement and dance steps, culture and history, various rhythms, country of origin and related movements. Egyptian music is the predominant focus. [PE, SE]

BASKETBALL

PE 140

1 Credits

22 hours of lab

Ball handling, shooting, passing, offensive and defensive techniques, rules, strategy and competitive play. [PE, SE]

BOWLING

PE 143

1 Credits

22 hours of lab

Techniques, styles of play, rules of courtesy, scoring and competitive games. [PE, SE]

FENCING-FOIL

PE 147

1 Credits

22 hours of lab

Movement of fencing plus defense, offense, rules of bouting, officiating, and competition. [PE, SE]

GOLF

PE 148

1 Credits

22 hours of lab

Fundamentals and practice of golf. Focuses on full-swing fundamentals, chipping, pitching, putting, golf strategies, and rules of the game. [PE, SE]

SOCCER

PE 150

1 Credits

22 hours of lab

Focus on individual offensive and defensive skills, game strategy, rules, and team tactics through the use of small-sided games and individual drills. [PE, SE]

SPORTS CONDITIONING: SOCCER-WOMEN

PE 152A

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate women's soccer. [PE, SE]

SPORTS CONDITIONING: SOCCER-MEN'S

PE 152B

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate men's soccer. [PE, SE]

SPORTS CONDITIONING: VOLLEYBALL

PE 152D

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in women's intercollegiate volleyball. [PE, SE]

SPORTS CONDITIONING: BASKETBALL-WOMEN'S

PE 152E

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate women's basketball. [PE, SE]

SPORTS CONDITIONING: BASKETBALL-MEN'S

PE 152F

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate men's basketball. [PE, SE]

SPORTS CONDITIONING: SOFTBALL

PE 152G

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in women's intercollegiate softball. [PE, SE]

SPORTS CONDITIONING: TRACK AND FIELD

PE 152I

1 - 3 Credits

6 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate track and field. [PE, SE]

SPORTS CONDITIONING: CHEERLEADING

PE 152J

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate cheerleading.

TENNIS

PE 155

1 Credits

22 hours of lab

Basic tennis skills including grip, foot work, and strokes, such as backhand, forehand, volley and serve. The drop shot, lob, and overhead shots will be introduced, as will singles and doubles strategies, rules, scoring and court etiquette. [PE, SE]

VOLLEYBALL

PE 158

1 Credits

22 hours of lab

Introduction to the fundamental skills and strategies of organized volleyball. Volleyball requires development of the following individual skills: forearm pass, set, spike, block, dig, and serve. In addition, students will gain an understanding of elementary team strategies. Students will learn to practice effective communication with teammates. [PE, SE]

ULTIMATE FRISBEE-BEGINNING

PE 163

1 Credits

22 hours of lab

Ultimate Frisbee fundamentals: individual skill development, rules, game play, and strategies. [PE, SE]

AQUA EXERCISE

PE 171

1 Credits

22 hours of lab

Conditioning through water exercises for students with or without swimming ability. Increased fitness with emphasis on stretching, flexibility, and abdominal and back strength. [PE, SE]

SCUBA-BEGINNING

PE 173

2 Credits

11 hours of lecture

22 hours of lab

Classroom lectures and discussion, swimming pool practice, and diving safety. Supervised experience in open water training optional at extra cost. Successful completion qualifies student for certification card. Prerequisite: Swimming ability. [PE, SE]

SWIMMING-STROKE AND SKILL IMPROVEMENT

PE 175

1 Credits

22 hours of lab

For swimmer who is comfortable in deep water. Instruction and improvement of individual swimming strokes and survival skills. [PE, SE]

SWIMMING-BEGINNING

PE 176

1 Credits

22 hours of lab

For non-swimmers and those who cannot swim 25 yards (one pool length). Opportunity to learn and improve individual swimming and water survival skills. Introduction to Red Cross swimming strokes with increased endurance and comfort in the water. [PE, SE]

SWIMMING-ELEMENTARY

PE 177

1 Credits

22 hours of lab

Designed for beginning swimming students who wish to further their confidence in the water. Focus is on improving swimming proficiency and water survival skills. Beginning swimming skills that are emphasized include the crawl, breast stroke, and diving. [PE, SE]

SWIM CONDITIONING-BEGINNING

PE 179

1 Credits

22 hours of lab

Emphasizes swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. Prerequisite: Ability to swim comfortably in the deep end of pool. [PE, SE]

HIKING

PE 182

1 Credits

22 hours of lab

Experience hiking off-campus on designated trails. Course emphasizes basic safety and survival skills and practices low-impact hiking methods. [PE, SE]

ROWING-BEGINNING

PE 183

1 Credits

22 hours of lab

Introduction to the sport of rowing. Includes basic technique and terminology, related water safety, development of strength, endurance and flexibility. Skills include rowing, strength training, cardiovascular training. Prerequisite: Must pass swimming test prior to first class. See Course Information Sheet outside OSC 206 for more information. [PE, SE]

CARDIO CONDITIONING-INTERMEDIATE

PE 200

1 Credits

22 hours of lab

Intermediate group exercise to music, primarily targeting cardiovascular conditioning. Prerequisite: PE 100. [PE, SE]

FITNESS WALKING-INTERMEDIATE

PE 202

1 - 2 Credits

44 hours of lab

Intermediate fitness walking with emphasis on walking programs and technique. Prerequisite: PE 102. [PE, SE]

BENCH STEP AEROBICS-INTERMEDIATE

PE 203

1 Credits

22 hours of lab

Intermediate high-intensity/low impact exercise program using a bench step promoting overall body strength and cardiovascular fitness. Prerequisite: PE 103. [PE, SE]

SPEED, AGILITY, AND QUICKNESS

PE 207

1 Credits

22 hours of lab

Additional drills to further advance personal ability in running, quickness, speed. Includes advanced plyometric training techniques. Prerequisite: PE 107. [PE, SE]

INDEPENDENT FITNESS - INTERMEDIATE

PE 208

1 - 2 Credits

44 hours of lab

A continuation of the self-paced conditioning course, plus setting and implementing an additional personalized health related goal to be determined at the first individual meeting with instructor. Prerequisite: PE 108. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: TAE KWON DO

PE 209A

1 Credits

22 hours of lab

A further examination into Tae Kwon Do, a Korean martial art that predominately focuses on kicking. Students must purchase a uniform for this class. Prerequisite: PE 109A. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: KUNG FU

PE 209B

1 Credits

22 hours of lab

A further examination into Kung Fu, a Chinese method of self-defense. Covers history and philosophy, basic strikes, blocks, and escapes from various attacks and grabs. Students must purchase a uniform for this class. Prerequisite: PE 109B. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: JUDO

PE 209D

1 Credits

22 hours of lab

A further examination into Judo, a Japanese martial art focused on throwing, where students learn falling techniques, basic takedowns, escapes, and joint locks. Students must purchase a uniform for this class. Prerequisite: PE 109D. [PE, SE]

CORE CONDITIONING-INTERMEDIATE

PE 211

1 Credits

22 hours of lab

Continuation of core conditioning techniques learned in PE 111. More advanced techniques introduced. Prerequisite: PE 111. [PE, SE]

tone and trim-INTERMEDIATE

PE 212

1 Credits

22 hours of lab

Continuation of general fitness improvement through stretching, flexibility and toning exercise. Prerequisite: PE 112. [PE, SE]

TOTAL BODY CONDITIONING-INT

PE 213

2 Credits

44 hours of lab

Continuation of individualized conditioning program for developing the various components of fitness. Additional focus on learning principles of fitness to create personalized workouts. Prerequisite: PE 113. [PE, SE]

TRIATHLON TRAINING

PE 214

2 Credits

44 hours of lab

Theoretical basis and competencies needed to safely and effectively train to complete a small triathlon will be explored. Activities include swimming, cycling and running along with a self-contained mini triathlon at course conclusion. Students must know how to swim and have their own bicycle. [PE, SE]

WEIGHT TRAINING-GENERAL II

PE 215

1 Credits

22 hours of lab

Continuation of individual lifting skills. Application of principles and theories to design personal workouts. Additional advanced lifts and techniques to be used and reviewed via videotapes. Prerequisite: PE 115. [PE, SE]

FITNESS CENTER-INTERMEDIATE

PE 216

1 Credits

22 hours of lab

Introduction to the fundamental skills necessary to implement a physical activity program in a fitness center setting. Students develop and implement an exercise program appropriate to their fitness level and individual needs using a variety of cardiovascular and resistance machines. [PE, SE]

WEIGHT TRAINING-POWER LIFTING II

PE 217

2 Credits

44 hours of lab

Continued application of skill and conditioning level. Application of workout design and training theory will also be covered and applied. Assessment of personal fitness parameters. Prerequisite: PE 117. [PE, SE]

CARDIO KICKBOXING-INT

PE 220

1 Credits

22 hours of lab

Continuation of PE 120. Intermediate students will demonstrate more advanced techniques and perform moves that require greater conditioning. Combines aerobic dance and martial arts, including American Kickboxing and Thai Boxing, in a format that increases cardiovascular endurance, sharpens reflexes and enhances power. Prerequisite: PE 120. [PE, SE]

YOGA-INTERMEDIATE

PE 221

1 Credits

22 hours of lab

A continuation of Hatha yoga technique. Students will practice more advanced postures and a deeper exploration of body-mind centering. Prerequisite: PE 121. [PE, SE]

T'AI CHI - INTERMEDIATE

PE 222

1 Credits

22 hours of lab

T'ai Chi is an ancient form of mental and spiritual discipline developed in China. The movements of the T'ai Chi form are slow, deliberate and focused. Intermediate T'ai Chi will introduce additional movements of the Yang Family Short Form, as well as encourage a deeper exploration of the principles introduced in Beginning T'ai Chi. Prerequisite: PE 122. [PE, SE]

HEALTHY HEART-INTERMEDIATE

PE 223 1 Credits
22 hours of lab

Continuation of exercise designed to lower risk for heart disease or to promote cardiac recovery. Study of healthy nutrition and stress reduction in the prevention of heart disease. Prerequisite: PE 123. [GE, PE, SE]

PILATES-INTERMEDIATE

PE 224 1 Credits
22 hours of lab

Continuation of Pilates method of conditioning needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. Prerequisite: PE 124. [PE, SE]

ROCK CLIMBING-INTERMEDIATE

PE 225 1 Credits
22 hours of lab

Learn advanced rock climbing methods. Bouldering technique and Lead Climbing skills will be taught, taking the student beyond the skills learned in PE 125. Prerequisite: Completion of PE 125 or consent of Instructional Unit.

BOOT CAMP-INTERMEDIATE

PE 229 2 Credits
44 hours of lab

Continuation of physical fitness for military purposes; emphasis on basic conditioning, discipline, and leadership. This course is open to all students. Prerequisite: PE 129. [PE, SE]

BALLET-INTERMEDIATE

PE 230 1 Credits
22 hours of lab

Stronger techniques with more advanced steps and combinations including toe. Prerequisite: PE 130. [PE, SE]

BALLROOM DANCE-INTERMEDIATE: SMOOTH

PE 231A 1 Credits
22 hours of lab

Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Smooth style dances include waltz, tango, fox trot, quick step and Viennese waltz. Prerequisite: PE 131A. [PE, SE]

BALLROOM DANCE-INTERMEDIATE: LATIN

PE 231B 1 Credits
22 hours of lab

Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin dance sections will include: mambo, cha cha, rumba, samba, and salsa. Prerequisite: PE 131B. [PE, SE]

CONTEMPORARY DANCE-INTERMEDIATE

PE 233 1 Credits
22 hours of lab

Intermediate techniques with opportunities for individual and group composition. Prerequisite: PE 133. [PE, SE]

MODERN JAZZ-INTERMEDIATE

PE 234 1 Credits
22 hours of lab

Refinement of jazz technique and skill improvement. Prerequisite: PE 134. [PE, SE]

SWING DANCE-INTERMEDIATE

PE 235 1 Credits
22 hours of lab

Continuation of PE 135. Includes partnering techniques such as leverage, posture, hovering, contrary body movement, rise and fall, and sway, and styling such as Cuban motion for Latin, spring action for East Coast Swing and heel leads for smooth. Introduction to opposite role as lead/follow. Prerequisite: PE 135. [PE, SE]

HIP-HOP DANCE-INTERMEDIATE

PE 237 1 Credits
22 hours of lab
Intermediate study of dance techniques, floor combinations, balance, and longer dance routines of hip hop dance. Develop more confidence and skill through practice. Prerequisite: PE 137. [PE, SE]

BELLY DANCE-INTERMEDIATE

PE 239 1 Credits
22 hours of lab
Continuation of the skills learned in PE 139, plus new variations and intermediate study of Middle Eastern Dance technique. Prerequisite: PE 139. [PE, SE]

BASKETBALL-INTERMEDIATE

PE 240 1 Credits
22 hours of lab
Continuation of skills, practice, and competitive play. Prerequisite: PE 140. [PE, SE]

BOWLING-INTERMEDIATE

PE 243 1 Credits
22 hours of lab
Advanced instruction in all phases of bowling including league play and competition. Prerequisite: PE 143. [PE, SE]

FENCING-FOIL,SABRE/EPEE

PE 246 1 Credits
22 hours of lab
Movements of all three weapons of fencing. Emphasizes defense, offense, rules, officiating and competition. [PE, SE]

FENCING-FOIL INTERMEDIATE

PE 247 1 Credits
22 hours of lab
Skill refinement and advanced technique for experienced foil fencers. Prerequisite: PE 147. [PE, SE]

GOLF-INTERMEDIATE

PE 248 1 Credits
22 hours of lab
More advanced instruction on golf swing, short game, and golf strategies. [PE, SE]

SOCCER-INTERMEDIATE

PE 250 1 Credits
22 hours of lab
Focus on learning and applying more advanced individual skills utilizing small and large groups to demonstrate more advanced team tactics. Prerequisite: PE 150. [PE, SE]

SPORTS CONDITIONING INTERMEDIATE: SOCCER-MEN

PE 252B 1 - 3 Credits
66 hours of lab
Strength and cardiovascular conditioning in preparation for competing in men's intercollegiate soccer. Prerequisite: PE 152B. [PE, SE]

SPORTS CONDITIONING INTERMEDIATE: VOLLEYBALL

PE 252D 1 - 3 Credits
66 hours of lab
Strength and cardiovascular conditioning in preparation for competing in women's intercollegiate volleyball. Prerequisite: PE 152D. [PE, SE]

SPORTS CONDITIONING INTER: BASKETBALL-WOMEN

PE 252E

1 - 3 Credits

66 hours of lab

Basketball-women's: Strength and cardiovascular conditioning in preparation for competing in intercollegiate basketball. Prerequisite: PE 152E. [PE, SE]

SPORTS CONDITIONING INTER: BASKETBALL-MEN'S

PE 252F

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate basketball. Prerequisite: PE 152F. [PE, SE]

SPORTS CONDITIONING INTERMEDIATE: SOFTBALL

PE 252G

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate softball. Prerequisite: PE 152G. [PE, SE]

SPORTS CONDITIONING INTERMEDIATE: TRACK & FI

PE 252I

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate track and field. Prerequisite: PE 152I. [PE, SE]

SPORTS CONDITIONING: CHEERLEADING-INTERMEDIATE

PE 252J

1 - 3 Credits

66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate cheerleading. Prerequisite: PE 152J.

TENNIS-INTERMEDIATE

PE 255

1 Credits

22 hours of lab

Refinement of tennis skills, advanced game strategies and strokes. Observe and assist 100 level students. Prerequisite: PE 155. [PE, SE]

VOLLEYBALL-INTERMEDIATE

PE 258

1 Credits

22 hours of lab

Further development of individual skills, team offenses and defenses learned in the beginning level PE 158. Prerequisite: PE 158. [PE, SE]

VOLLEYBALL-POWER

PE 260

1 Credits

22 hours of lab

Higher level of volleyball for the advanced player utilizing advanced skills and drills. Emphasis will be placed on advanced offensive and defensive strategies. Prerequisite: PE 158 and PE 258 or competitive experience. [PE, SE]

ULTIMATE FRISBEE-INTERMEDIATE

PE 263

1 Credits

22 hours of lab

Continuation of individual skill development, rules, game play, and strategies for the intermediate level ultimate Frisbee player. Prerequisite: PE 163. [PE, SE]

AQUA EXERCISE-INTERMEDIATE

PE 271 1 Credits

22 hours of lab

Continuation of water exercise conditioning through stretching, flexibility, abdominal and back strength. Prerequisite: PE 171. [PE, SE]

SWIMMING-INTERMEDIATE

PE 274 1 Credits

22 hours of lab

For the elementary swimmer who is comfortable in deep water and can swim 25 yards. Review Red Cross swimming strokes and safety skills while increasing strength and endurance. [PE, SE]

SWIMMING-STROKE & SKILL IMPROVEMENT-INT

PE 275 1 Credits

22 hours of lab

For the intermediate swimmer. Continuation of individual swimming strokes and endurance. Prerequisite: PE 175. [PE, SE]

SWIM CONDITIONING-INTERMEDIATE

PE 279 1 Credits

22 hours of lab

Continued practice of swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. Prerequisite: PE 179. [PE, SE, GE]

SELECTED TOPICS

PE 280 1 - 5 Credits

55 hours of lecture

The course focuses on selected topics in Physical Education. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedules. [PE, SE]

HIKING-INTERMEDIATE

PE 282 1 Credits

22 hours of lab

Continuation of hiking skills with focus on advanced safety and survival skills. Explore local hiking options, practice low-impact hiking methods on longer, more challenging hikes, and plan a future hike. [PE, SE, GE]

ROWING-INTERMEDIATE

PE 283 1 Credits

22 hours of lab

Further development of rowing technique, tactics and fitness development. Prerequisite: A grade of "S" in PE 183. [PE, SE]

SPECIAL PROJECTS

PE 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

CARE AND PREVENTION OF ATHLETIC INJURIES

PE 291 3 Credits

22 hours of lecture

22 hours of lab

Injury prevention in sports through understanding of conditioning, bio-mechanics, taping, bandaging, nutrition, immediate post-injury care, and rehabilitation of sports injury. [PE, SE]

MENTAL PERFORMANCE IN SPORTS

PE 293

3 Credits

33 hours of lecture

Theories and strategies of mental preparation for improvement in individual and team performances. Discussion topics include: personality, motivational model, time management/goal setting techniques. Coach profiles, team communication, steps to team building, stress management and performance anxiety and imagery will also be covered. A review of current literature and the case analysis method will provide opportunity for individual and group application of presented materials. [PE, SE]

SPORT IN SOCIETY

PE 294

3 Credits

33 hours of lecture

Explores the relationship which exists between the multifaceted world of sport and society. Discussion topics include: racism, gender in equality, aggression, deviancy, media/commercialism, as well as youth sports. Discussion will also include the concept of play, competition and the rapid development of youth sport programs and their impact on the family unit. [PE, SE]

Physical Science

GENERAL PHYSICAL SCIENCE

PHSC 101

5 Credits

44 hours of lecture

22 hours of lab

How the world around us behaves depends on the nature of matter and energy. Physical laws are presented in this course that describe the interaction of matter and energy. These laws are used to help explain experiences from daily life. For the non-science major, with little or no science background. [NS, SE]

GENERAL PHYSICAL SCIENCE

PHSC 102

5 Credits

44 hours of lecture

22 hours of lab

How matter reacts and its application in a technical society. Simple chemical molecules are discussed as are the origin, nature, and changing features of the earth. For non-science majors with little or no science background. No prerequisites are required. [NS, SE]

INTRODUCTION TO DESIGN

PHSC 104

5 Credits

44 hours of lecture

33 hours of lab

Introduction to the engineering method of problem solving through guided Engineering design projects. Focus on developing group skills, understanding the effects of different learning styles, producing strategies for innovation, and fostering creativity in problem solving. [NS, SE]

OUR CHEMICAL WORLD

PHSC 106

3 Credits

33 hours of lecture

Introduction to basic chemical concepts and discussion of selected applications in the world around us. [NS, SE]

SCIENCE OF SCI FI

PHSC 110

5 Credits

33 hours of lecture

44 hours of lab

Introduction to the Scientific Method and the principles of Physics, and Chemistry through the investigation of Science Fiction. Learn to distinguish between science and pseudoscience. Through the investigation of science fiction TV shows and films we will establish and investigate both accepted scientific principles and examine and invalidate others. Prerequisite: A grade of "C" or better in MATH 089 or 090, or placement in MATH 091 or higher. [NS, SE]

COOPERATIVE WORK EXPERIENCE

PHSC 199

1 - 3 Credits

99 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

Physics

APPLIED PHYSICS

PHYS 090

5 Credits

44 hours of lecture

22 hours of lab

Topics include force, motion, torque, energy, power, friction, electricity, magnetism, mechanical advantage, fluids, metric measurement, elasticity, heat, temperature, heat transfer, and heat engines. Open to all students seeking an Applied Science degree.

PHYSICS CALCULATIONS

PHYS 091

1 Credits

11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS & 121 is required.

PHYSICS CALCULATIONS

PHYS 092

1 Credits

11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 122 required.

PHYSICS CALCULATIONS

PHYS 093

1 Credits

11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 123 required.

PHYSICS CALCULATIONS

PHYS 094

1 Credits

11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 221 required.

PHYSICS CALCULATIONS

PHYS 095

1 Credits

11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 222 required.

PHYSICS CALCULATIONS

PHYS 096

1 Credits

11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 223 required.

PHYSICS NON-SCI MAJORS

PHYS& 100

4 Credits

44 hours of lecture

Introduction to basic physics concepts for non-science majors, technical students, or students who desire a PHYS& 121 or 221 preparatory course. Concurrent enrollment in PHYS 101 Lab course required. Prerequisite: MATH 090 or equivalent. [NS, SE]

GENERAL PHYSICS I

PHYS& 121 5 Credits
44 hours of lecture 33 hours of lab

Physical principles of motion, equilibrium, dynamics, gravity, work energy, momentum, and fluids. Recommended for students in medicine, dentistry, pharmacy, physical therapy, forestry and the life sciences. Part of a three-quarter sequence offered each year beginning fall and winter quarters. Concurrent enrollment in PHYS 091 required. Prerequisite: A grade of "C" or better in MATH 103 or equivalent or concurrent enrollment in MATH 111. [NS, SE]

GENERAL PHYSICS II

PHYS& 122 5 Credits
44 hours of lecture 33 hours of lab

Fundamental physical principles of sound, fluids, heat, thermodynamics, electricity, and magnetism. Second of a three-quarter sequence. Concurrent enrollment in PHYS 092 and 122 Lab required. Prerequisite: PHYS& 121 or consent of Instructional Unit. [NS, SE]

GENERAL PHYSICS III

PHYS& 123 5 Credits
44 hours of lecture 33 hours of lab

Topics in electricity, magnetism, atomic and nuclear physics, and optics. Third of a three-quarter sequence. Concurrent enrollment in PHYS 093 required. Prerequisite: PHYS 102 or consent of Instructional Unit. [NS, SE]

GENERAL PHYSICS LAB I

PHYS& 124 1 Credits
33 hours of clinical

Exploration of classical physics topics in mechanics through laboratory experience. Concurrent enrollment in PHYS& 134.

GENERAL PHYSICS LAB II

PHYS& 125 1 Credits
33 hours of clinical

Exploration of classical physics topics in fluids, thermodynamics, and sound through laboratory experience. Concurrent enrollment in PHYS& 135.

GENERAL PHYSICS LAB III

PHYS& 126 1 Credits
33 hours of clinical

Exploration of classical physics topics in electricity and magnetism, optics, and modern physics through laboratory. Concurrent enrollment in PHYS& 136.

GENERAL PHYSICS I

PHYS& 134 4 Credits
44 hours of lecture

First of a three-quarter sequence, offered in fall and winter quarters. Physical principles of motion, equilibrium, dynamics, gravity, work energy, momentum, and fluids. Recommended for students in medicine, dentistry, pharmacy, physical therapy, forestry and the life sciences. Concurrent enrollment in PHYS 091 and PHYS& 124 required. Prerequisite: A grade of "C" or better in MATH 103 or equivalent or concurrent enrollment in MATH 111.

GENERAL PHYSICS II

PHYS& 135 4 Credits
44 hours of lecture

Second of a three-quarter sequence beginning with PHYS& 134. Fundamental physical principles of sound, fluids, heat, thermodynamics, electricity, and magnetism. Concurrent enrollment in PHYS& 125 and PHYS 092. Prerequisite: A grade of "C" or better in PHYS& 134.

GENERAL PHYSICS III

PHYS& 136 4 Credits

44 hours of lecture

Third of a three-quarter sequence beginning with PHYS& 134. Topics in electricity, magnetism, atomic and nuclear physics, and optics. Concurrent enrollment in PHYS& 126 and 093. Prerequisite: A grade of "C" or better in PHYS& 135.

COOPERATIVE WORK EXPERIENCE

PHYS 199 1 - 3 Credits

99 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

ENGINEERING PHYSICS

PHYS& 221 5 Credits

44 hours of lecture 33 hours of lab

Classical physics topics in mechanics. For students majoring in engineering, chemistry, physics, geology, or mathematics. Beginning course of a three-quarter sequence offered each year starting fall and winter quarters. Completion of, or concurrent enrollment in MATH& 152 (or MATH 211), and concurrent enrollment in PHYS 094 required. [NS, SE]

ENGINEERING PHYSICS

PHYS& 222 5 Credits

44 hours of lecture 33 hours of lab

Physics topics in fluids, heat, thermodynamics, sound, electricity, and magnetism. Second quarter of a three-quarter sequence beginning with PHYS 201. Concurrent enrollment in PHYS 095 required. Prerequisite: A grade of "C" or better in PHYS& 221 (or PHYS 201). [NS, SE]

ENGINEERING PHYSICS

PHYS& 223 5 Credits

44 hours of lecture 33 hours of lab

Topics in electricity, magnetism, atomic and nuclear physics, and optics. Third quarter of a three-quarter sequence beginning with PHYS 221. Concurrent enrollment in PHYS 096 required. Prerequisite: A grade of "C" or better in PHYS& 222 (or PHYS 202). [NS, SE]

SPECIAL PROJECTS

PHYS 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Political Science

AMERICAN NATIONAL GOVERNMENT AND POLITICS

POLS 111 5 Credits

55 hours of lecture

The institutions, structures, and processes that affect the course of politics and public policy at the national level of American government. [SE, SS]

STATE AND LOCAL GOVERNMENT

POLS 131 5 Credits

55 hours of lecture

The institutions, structures, and political processes at the state and local levels of government in our federal system. [SE, SS]

SURVEY OF STATE AND LOCAL GOVERNMENT

POLS 141 3 Credits
33 hours of lecture

The structure and operation of state and local government, stressing the politics and other processes involved in the making of public policy at these levels of government. Designed for paralegal students. [SE, SS]

MODEL UNITED NATIONS

POLS 151 2 Credits
22 hours of lecture

The United Nations and its functions, current problems, and world reactions to them. Required for participation in the Model United Nations program. Entering students first register for 151, then subsequent sequence numbers for up to a total of 6 quarters. [SE, SS]

MODEL UNITED NATIONS

POLS 152 2 Credits
22 hours of lecture

Continuation of POLS 151. Required for participation in Model United Nations activities. [SE, SS]

MODEL UNITED NATIONS

POLS 153 2 Credits
22 hours of lecture

Continuation of POLS 152. Required for participation in Model United Nations activities. [SE, SS]

WORLD WITHOUT WAR

POLS 161 3 Credits
33 hours of lecture

Seminar exploring psychological, emotional, political, economic, and other causes of war. Emphasis on search for peace and kinds of peace research currently being conducted in the world. [SE]

SURVEY OF THE UNITED STATES CONSTITUTION

POLS 171 3 Credits
33 hours of lecture

An examination of the role of the Constitution and judicial interpretation in American politics and public policy. Primary emphasis is on the United States Supreme Court. Specific topics will include civil rights, civil liberties, economic regulation and property rights, and criminal justice. Prerequisite: POSC 111 or SOC 110 or HIST 131. [SE]

INTERNATIONAL RELATIONS

POLS& 203 5 Credits
55 hours of lecture

World politics, concepts and theories from the post-World War II period. Processes of power, foreign policy, development and trends in the current international scene analyzed. Conflict and conflict resolution and control. [SE, SS]

THE GEOPOLITICS OF THE MIDDLE EAST

POLS 220 5 Credits
55 hours of lecture

Geo-political survey of the Middle East, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of the Middle East on the rest of the world, as well as the impact and influence of the rest of the world on the Middle East. Credit not allowed for both POLS 220 and GEOG 220. [SE]

THE GEOPOLITICS OF AFRICA

POLS 221

5 Credits

55 hours of lecture

Geo-political survey of Africa, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Africa on the rest of the world, as well as examine the impact and influence of the rest of the world on Africa. Credit not allowed for both POLS 221 and GEOG 221. [SE]

THE GEOPOLITICS OF CHINA, JAPAN & EAST ASIA

POLS 222

5 Credits

55 hours of lecture

Geo-political survey of China, Japan and East Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of China, Japan and East Asia on the rest of the world, as well as examine the impact and influence of the rest of the world on China, Japan and East Asia. Credit not allowed for both POLS 222 and GEOG 222. [SE]

THE GEOPOLITICS OF SOUTH AND CENTRAL ASIA

POLS 223

5 Credits

55 hours of lecture

Geo-political survey of South and Central Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of South and Central Asia on the rest of the world, as well as examine the impact and influence of the rest of the world on South and Central Asia. Credit not allowed for both POLS 223 and GEOG 223. [SE]

ENVIRONMENTAL POLITICS

POLS 231

5 Credits

55 hours of lecture

Examines the relationship between industrial civilization and the natural environment by exploring underlying ecological philosophies and the economic and political processes by which environmental decisions are made. Emphasis on critical thinking and evaluating alternative points of view. Prerequisite: POLS 111, 131 or POLS& 203 (or POSC 111, 131 or 211), or consent of Instructional unit. [SE, SS]

MODEL UNITED NATIONS

POLS 251

2 Credits

22 hours of lecture

Continuation of POLS 153. Required for participation in Model United Nations activities. [SE, SS]

MODEL UNITED NATIONS

POLS 252

2 Credits

22 hours of lecture

Continuation of POLS 251. Required for participation in Model United Nations activities. [SE, SS]

MODEL UNITED NATIONS

POLS 253

2 Credits

22 hours of lecture

Continuation of POLS 252. Required for participation in Model United Nations activities. [SE, SS]

SELECTED TOPICS

POLS 280

1 - 5 Credits

55 hours of lecture

This course focuses on selected topics in political science. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

POLS 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Power Utilities

BASIC ELECTRICAL CONCEPTS

PWR 101

7 Credits

55 hours of lecture

44 hours of lab

Fundamentals of direct current and alternating current circuits, components and devices. Includes power laboratory assignments. Concurrent enrollment in PWR 150. Prerequisite: A grade of "C" or better in ENGL 098 and MATH 090, or equivalent placement score. [GE]

CAREER EXPLORATION FOR THE POWER UTILITIES

PWR 150

1 Credits

11 hours of lecture

Introduction to various technical career tracks available within the electric power industry. Topics include job responsibilities involved with careers in the power generation, electric transmission and distribution areas. [GE]

INTRODUCTION TO THE POWER UTILITIES INDUSTRY

PWR 151

7 Credits

55 hours of lecture

44 hours of lab

Introduction to the electric power industry, its history and the development of our country's electric system. Students will learn about generation, transmission, and distribution of electric energy and the development of local, regional and national energy grids. Concurrent enrollment in PWR 152 required. Prerequisite: A grade of "C" or better in PWR 101; and a grade of "C" or better in MATH 090 or placement in MATH 095. [GE]

TOOLS OF THE TRADE

PWR 152

2 Credits

44 hours of lab

Introduction to the tools commonly used in the electric power utilities trades and safety practices in their operation. Activities will include tours to local utility facilities. Concurrent enrollment in PWR 151. Prerequisite: A grade of "C" or higher in PWR 101 and MATH 098. [GE]

ELECTRICAL SAFETY

PWR 153

1 Credits

11 hours of lecture

Introduction to the general safety practices and information employees need while working in any segment of the electrical industry. Materials will include federal safety regulations and safe operating practices in the technical crafts of the industry. Concurrent enrollment in PWR 151. Prerequisite: A grade of "C" or better in PWR 101 or MATH 098. [GE]

ELECTRICAL SYSTEM COMPONENTS

PWR 154

7 Credits

55 hours of lecture

44 hours of lab

Examination of practical considerations and applications of the generation, transmission, and distribution systems of local, regional and national energy grids. Concurrent enrollment in PWR 155 and 156. Prerequisite: A grade of "C" or better in PWR 151, 152, and 153, ENGL 098 and MATH 090, or equivalent placement score. [GE]

PRINT READING FOR THE UTILITY INDUSTRY

PWR 155

2 Credits

22 hours of lecture

Introduction to electrical utility blueprint reading which defines the physical and electrical arrangements of equipment including power plants, substations, transmission lines, distribution lines and customer service facilities. These documents are developed by designers to guide construction of facilities and are used by operating personnel to maintain, repair and modify utility equipment. Concurrent enrollment in PWR 154, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in PWR 151, or consent of Instructional Unit. [GE]

ELECTRICAL SYSTEM TROUBLE SHOOTING

PWR 156

2 Credits

11 hours of lecture

22 hours of lab

Electrical System Troubleshooting is a key skill required of many electrical craft personnel. The course includes analysis of circuit diagrams and assembly and troubleshooting of electric control systems. Concurrent enrollment in PWR 154. Prerequisite: A grade of "C" or better in PWR 151. [GE]

COOPERATIVE WORK EXPERIENCE

PWR 199

1 - 6 Credits

198 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Written consent of the Power Utilities Program is required. Prerequisite: A grade of "C" or better or concurrent enrollment in PWR 154, PWR 155 and PWR 156. [GE]

ELECTRIC UTILITY SYSTEM PROTECTION

PWR 201

3 Credits

27 hours of lecture

11 hours of lab

Basic electric utility protective relay systems beginning with electromechanical relays and advancing to modern microprocessor relays. Introduction to Supervisory Control and Data Acquisition systems and revenue metering. Prerequisite: Completion of the Power Utilities Technology Certificate of Proficiency. Students with equivalent industry experience may enroll in the class with permission of the instructor. [GE]

SELECTED TOPICS

PWR 280

1 - 6 Credits

66 hours of lecture

Course focuses on selected topics in Electronics. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE]

Professional Technical Writing

APPLIED TECHNOLOGY WRITING DESCRIPTIONS

PTWR 094

1 Credits

11 hours of lecture

Basic skills for organizing and writing technical descriptions for Applied Technology courses; identifying and describing objects or events and exploring best practices and procedures for practical scenarios. Concurrent enrollment in an Applied Technology program. Prerequisite: ASSET Writing Test Score 36-38, placement in ENGL 097, or "C" or better in DVED 094.

APPLIED TECHNOLOGY WRITING ANALYSES

PTWR 095

1 Credits

11 hours of lecture

Basic skills for organizing and explaining causes and effects as taught in Applied Technology classes; writing concise reports under timed conditions that reflect the results of research, critical thinking and problem-solving. Concurrent enrollment in an Applied Technology program. Prerequisite: ASSET Writing Test Score 36-38, placement in ENGL 097, or "C" or better in DVED 094.

APPLIED TECHNOLOGY WRITING PROCEDURES

PTWR 096

1 Credits

11 hours of lecture

Basic skills for organizing and writing technical descriptions of processes or procedures for Applied Technology courses; writing concise reports under timed conditions that reflect the results of research, critical thinking and problem-solving. Concurrent enrollment in an Applied Technology program. Prerequisite: ASSET Writing Test Score 36-38, placement in ENGL 097, or "C" or better in DVED 094.

APPLIED TECHNOLOGY WRITING REPORTS

PTWR 097

1 Credits

11 hours of lecture

Basic skills for person-to-person research and communication in Applied Technology courses; writing concise reports under timed conditions that reflect the results of research, critical thinking and problem-solving. Concurrent enrollment in an Applied Technology program. Prerequisite: ASSET Writing Test Score 36-38, placement in ENGL 097, or "C" or better in DVED 094.

APPLIED TECHNOLOGY WRITING APPLICATIONS

PTWR 098

1 Credits

11 hours of lecture

Basic skills for seeking and identifying potential employers, analyzing published notices of employment opportunities, writing and revising letters of applications and preparing appropriate resumes of professional experience. Designed to provide tangible tools related to gaining employment. Concurrent enrollment in an Applied Technology program. Prerequisite: ASSET Writing Test Score 36-38, placement in ENGL 097, or "C" or better in DVED 094.

FUNDAMENTALS OF TECHNICAL WRITING

PTWR 099

3 Credits

33 hours of lecture

Fundamental skills in workplace written communication: focus on resumes, instructions, letters, memos, reports; methods of writing clear, concise documents for technical audiences and purposes. Prerequisite: ASSET Writing Test Score 39-44 or ENGL 097.

Psychology

GENERAL PSYCHOLOGY

PSYC& 100

5 Credits

55 hours of lecture

The scientific study of behavior and mental processes including research methods, psychobiological processes, learning, memory, psychological disorders, psychotherapy, and other topics to be determined by the instructor. Prerequisite: COMPASS reading score of 85 or higher, or a cumulative GPA of 2.0 or higher. [SE, SS]

COOPERATIVE WORK EXPERIENCE

PSYC 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

LIFESPAN PSYCHOLOGY

PSYC& 200

5 Credits

55 hours of lecture

Principles and theories of human growth and development; the interaction of psychological, biological, and social factors throughout the life span. Prior completion of PSYC& 100 recommended. [SE, SS]

SOCIAL PSYCHOLOGY

PSYC 203

5 Credits

55 hours of lecture

Effects of social environment and interpersonal processes on both individual and collective behaviors. Socialization, impression formation and management, attitude formation and change, prejudice, aggression, altruism, leadership, power, conformity, environmental psychology, and other topics. Prerequisite: PSYC& 100 (or PSYC 101). [SE, SS]

PSYCHOLOGY: SELECTED TOPICS

PSYC 280

1 - 3 Credits

33 hours of lecture

Selected topics in psychology as listed in the quarterly class schedule. May be repeated for credit. Prerequisite: PSYC& 100 (or PSYC 101) or consent of instructional Unit. [SE]

SPECIAL PROJECTS

PSYC 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Reading

BASIC READING

READ 081

4 Credits

44 hours of lecture

For students planning on continuing in college. Development of reading skills including vocabulary and overall comprehension. Prerequisites: Recommending score on placement test or written consent of Instructional Unit.

READING FUNDAMENTALS

READ 082

4 Credits

44 hours of lecture

Improvement of academic reading skills through instruction and practice in comprehension, vocabulary building, retention strategies, textbook reading and notetaking skills along with an introduction to the basic elements for the development and enhancement of the enjoyment of reading. Prerequisite: Recommending score on placement test or written consent of Instructional Unit.

ACADEMIC READING

READ 083

4 Credits

44 hours of lecture

Analysis and interpretation of textbooks, short stories and other sources. Development of information-gathering, vocabulary and rate techniques, and use of graphs and charts. Prerequisite: Recommendation on placement test or written consent of Instructional Unit.

CRITICAL READING

READ 087

4 Credits

44 hours of lecture

Development of advanced comprehension skills such as recognizing the author's tone, interpreting figurative language, distinguishing fact and opinion, recognizing persuasive language, and evaluating the soundness of an argument. Prerequisite: Recommending score on placement test or written consent of Instructional Unit.

COLLEGE READING

READ 100

4 Credits

44 hours of lecture

Develops skills for more comprehensive and efficient college level reading. Emphasis is on the improvement of comprehension and reading rate, the development of good reading habits, critical and analytical skills, study-reading techniques, and vocabulary enhancements. Prerequisite: College reading level on placement test or recommendation of instructor. [GE]

Sociology

INTRO TO SOCIOLOGY

SOC& 101

5 Credits

55 hours of lecture

Introduces the sociological perspectives that explain human interaction, social institutions, and social change. Examines these social phenomena from a variety of sociological perspectives, including the functionalist, conflict, and symbolic-interactionist. Prerequisite: COMPASS reading score of 85 or higher, or a cumulative GPA of 2.00 or higher. [SE, SS]

MARRIAGE AND FAMILY EXPERIENCES IN THE U.S.

SOC 121

3 Credits

33 hours of lecture

Marriage and family experiences will be examined along with other social institutions that affect the marriage and family relationships in a changing U.S. culture. [SE, SS]

RACE AND ETHNICITY IN THE U.S.

SOC 131

3 Credits

33 hours of lecture

The sociological perspectives of race and ethnicity, including an examination of prejudice and discrimination from the interpersonal to the institutional level. Application of concepts and theories to both historical and current events in the U.S. [SE]

INTRODUCTION TO ISLAM

SOC 141

3 Credits

33 hours of lecture

Introduction to the world of Islam and Muslim populations. Topics include Islam as a way of life in a socio-cultural context and the ways this religion affects the individual, family, and social life in various Islamic societies. Focus on analyzing Islam both in theory and in practice. [SE]

COOPERATIVE WORK EXPERIENCE

SOC 199

1 - 5 Credits

165 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment HDEV 195, 198 or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

SOCIAL PROBLEMS

SOC& 201

5 Credits

55 hours of lecture

Study of the magnitude and consequences of social problems in the US from a sociological perspective and examination of solutions to these problems from a cross-cultural perspective. Topics include: health, work, inequality, family, environment, substance abuse, crime and national security. Prerequisite: A grade of "C" or better in SOC 101. [SE, SS]

DEATH AND DYING

SOC 220

3 Credits

33 hours of lecture

A comprehensive survey of death, dying, bereavement, and other losses and their societal impacts upon people. Various cultural attitudes, traditions and changing values surrounding death and dying will be explored. [SE, SS]

DOMESTIC VIOLENCE

SOC 230

5 Credits

55 hours of lecture

Introducing historical and current ideas, myths and empirical research regarding domestic partner abuse. Defining

abuse and examining cultural, social, family and psychological factors associated with offenders and victims: why, how, who, and what responses have been tried. Prerequisite: SOC& 101 or PSYC& 100 (or SOC 101 or PSYC 101). [SE]

CRIMINOLOGY

SOC 240 5 Credits
55 hours of lecture

An introductory examination of crime, deviant behavior and social control. Crime and deviance as social processes. Historical and contemporary explanations of criminological theory. Prerequisite: SOC& 101 or PSYC& 100 (or SOC 101 or PSYC 101). [SE]

SOCIOLOGY: SELECTED TOPICS

SOC 280 1 - 5 Credits
55 hours of lecture

Varying topics in Sociology as listed in the quarterly class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS

SOC 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Spanish

SPANISH I

SPAN& 121 5 Credits
55 hours of lecture

First of a three-quarter sequence in elementary Spanish. Emphasis on listening/speaking skills, with additional practice in reading/writing. Course intended for students with little or no previous experience in studying Spanish. [HA, SE]

SPANISH II

SPAN& 122 5 Credits
55 hours of lecture

Continuation of the elementary Spanish sequence. Prerequisite: SPAN& 121 or two years high school Spanish, or S-CAPE placement test recommended. [HA,SE]

SPANISH III

SPAN& 123 5 Credits
55 hours of lecture

Conclusion of the three-quarter sequence in elementary Spanish. Prerequisite: SPAN& 122 or equivalent, or S-CAPE placement test recommended. [HA,SE]

CONVERSATIONAL SPANISH

SPAN 141 3 Credits
33 hours of lecture

Intensive practice in Spanish conversation. Discussion in small groups of contemporary topics common to American and Hispanic societies. Prerequisite: SPAN& 122 or equivalent. [HB, SE]

STUDY ABROAD ORIENTATION

SPAN 150 1 Credits
11 hours of lecture

Preparing students to travel with the Clark College study abroad program in Spanish-speaking country. Successful completion of this course required for students to participate in the travel abroad program. Application and acceptance into the study abroad program also required. Prerequisite: A grade of "C" or better or concurrent enrollment in SPAN& 122 or above; or consent of Instructional Unit. [SE]

SPANISH STUDIES

SPAN 204 2 Credits
22 hours of lecture
Student and instructor determine area of study from the following: literature, civilization and culture, or advanced Spanish composition and conversation. Prerequisite: Consent of Instructional Unit. [HA, SE]

SPANISH STUDIES

SPAN 205 2 Credits
22 hours of lecture
Student and instructor determine area of study from the following: literature, civilization and culture, or advanced Spanish composition and conversation. Prerequisite: Consent of Instructional Unit. [HA, SE]

SPANISH STUDIES

SPAN 206 2 Credits
22 hours of lecture
Student and instructor determine area of study from the following: literature, civilization and culture, or advanced Spanish composition and conversation. Prerequisite: Consent of Instructional Unit. [HA, SE]

SPANISH IV

SPAN& 221 5 Credits
55 hours of lecture
Discussion in Spanish of topics from Hispanic civilization and culture. Intensive grammar review and composition practice. Prerequisite: SPAN& 123 or equivalent, or S-CAPE placement test recommended. [HA, SE]

SPANISH V

SPAN& 222 5 Credits
55 hours of lecture
Discussion in Spanish of topics from Hispanic civilization and culture. Intensive grammar review and composition practice. Prerequisite: SPAN& 221 or equivalent. [HA, SE]

SPANISH VI

SPAN& 223 5 Credits
55 hours of lecture
Discussion in Spanish of topics from Hispanic civilization and culture. Intensive grammar review and composition practice. Prerequisite: SPAN& 222 or equivalent. [HA, SE]

SELECTED TOPICS

SPAN 280 1 - 5 Credits
55 hours of lecture
Selected topics in Spanish. Topics vary and course theme and content change to reflect new topics. This course may be repeated for credit. [SE]

SPECIAL PROJECTS

SPAN 290 1 - 5 Credits
Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Speech (CMST)

INTRO TO MASS MEDIA

CMST& 102 5 Credits
55 hours of lecture
Examination of the interdependence of mass communication and society in the US with emphasis on media literacy and conscious consumption of mass mediated messages. [HA, SE]

INTRODUCTION TO BROADCASTING

CMST 130

3 Credits

33 hours of lecture

Examination of the broadcasting system; the social and economic forces that shape it and its end product, programming. Analysis of the rights and responsibilities of broadcasters. [SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 171

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis on debate/persuasive speaking, attention given to other forms of speech events and tournament management. Prerequisite: A grade of "C" or better in CMST& 220 (or CMST 101), or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 172

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis on informative speaking and interpretive reading. Attention given to debate and other forms of speech events. Prerequisite: A grade of "C" or better in CMST& 220 (or CMST 101), or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 173

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis on audience analysis and other forms of forensics activities. Prerequisite: A grade of "C" or better in CMST& 220 (CMST 101) or consent of Instructional Unit. [HB, SE]

COOPERATIVE WORK EXPERIENCE

CMST 199

1 - 5 Credits

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in HDEV 195, 198 or 200 required. Prerequisite: Consent of Instructional Unit. [GE]

INTERPERSONAL COMMUNICATION

CMST& 210

5 Credits

55 hours of lecture

Person-to-person communication emphasizing theoretical principles and their application. How self-concept, perception, verbal and non-verbal attributes and attitudes influence communication within the family, between friends, and at work. [C, SE, HA]

ORAL COMMUNICATION IN BUSINESS

CMST 212

3 Credits

33 hours of lecture

Principles and practices of speech communication at work. Face-to-face and person-to-group interactions common to organizations and work settings. Credit not allowed for both MGMT 108 and CMST 212. [SE]

INTERCULTURAL COMMUNICATION

CMST 216

5 Credits

55 hours of lecture

Examination of the impact of culture on communication. Analysis of patterns of communications which affect the ability to establish clear understanding and effective interpersonal relationships. Skills to improve communication across cultural boundaries. [HA, SE]

PUBLIC SPEAKING

CMST& 220

5 Credits

55 hours of lecture

Introduction to speechmaking based primarily on a traditional public speaking approach. Aids students in developing theoretical understanding and practical application of oral communication skills. Techniques in controlling speech anxiety, how to structure and organize information to present to a variety of audiences; and physical and vocal delivery skills. [C,HA,SE]

SMALL GROUP COMMUNICATION

CMST& 230

5 Credits

55 hours of lecture

Small group communication emphasizing theoretical principles and their application, enabling students to become more comfortable and competent participants in the group communication process. Emphasis will be on the study and application of the dynamics of group development, problem solving methodologies, and the use of power, including leadership and conflict. Formerly titled CMST 201. Credit not allowed for both CMST 201 and CMST& 230. [C,SE,SS,HA]

INTRODUCTION TO PERSUASION THEORY

CMST 240

5 Credits

55 hours of lecture

A survey of the evaluation of the concepts and techniques of persuasive public address, from the early Greek period through contemporary theorists. A non-public speaking course with the emphasis and focus on the understanding and analysis of persuasive oral discourse. [HA, SE]

WRITING FOR TELEVISION AND FILM

CMST 250

3 Credits

33 hours of lecture

Film and television scriptwriting with emphasis on commercial, dramatic and news formats. Prerequisite: A grade of "C" or better in ENGL& 101 (or ENGL 101). [SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 271

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis given to advanced and independent studies in debate and persuasive speaking. Attention given to style. Students will manage the Clark College forensics tournament. Prerequisite: A grade of "C" or better in CMST 171, 172 or 173, or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 272

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Emphasis given to advanced and independent studies in informative speaking and interpretive reading. Attention given to style. Prerequisite: A grade of "C" or better in CMST 171, 172 or 173, or consent of Instructional Unit. [HB, SE]

COMPETITIVE SPEAKING AND DEBATE

CMST 273

3 Credits

33 hours of lecture

For students interested in intercollegiate speech/debate competition. Attention given to advanced and independent audience analysis and other forensics activities. Prerequisite: A grade of "C" or better in CMST 171, 172 or 173, or consent of Instructional Unit. [HB, SE]

SELECTED TOPICS

CMST 280

5 Credits

55 hours of lecture

The course focuses on selected topics in Communication Studies. Topics vary, and course theme and content

change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule. [SE]

SPECIAL PROJECTS

CMST 290

1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Surveying

INTRODUCTION TO GPS

SURV 100

2 Credits

11 hours of lecture

22 hours of lab

Introduction to global positioning tools. Fundamental concepts and use of modern handheld GPS. Includes field work and use of basic GPS software. Prerequisite: A grade of "C" or better in MATH 095 or qualifying score on placement test. [GE]

FUNDAMENTALS OF SURVEY

SURV 102

2 Credits

11 hours of lecture

22 hours of lab

Introduction to concepts of map reading, coordinate systems, the Public Land Survey System, basic legal descriptions of real property, plotting field data and creating a plat, and the minimum requirements for preparing plats in the State of Washington. No field work required. [GE]

APPLIED MATH FOR SURVEYING

SURV 104

5 Credits

55 hours of lecture

Basic coordinate geometry, curves and solutions, conversions, statistics and error analysis, traverse calculations, inversing, coordinate positions, and area calculations. Prerequisite: A grade of "C" or better in MATH 103. [GE]

FIELD SURVEY I

SURV 121

5 Credits

88 hours of lecture

44 hours of lab

Basic theory of surveying, measurement and calculation. Topics include measurement and determination of boundaries, areas, shapes, and location through traversing techniques, error theory, compass adjustments, public land system, and use of programmable calculators. Also covers principles of measurements of distances, elevation and angles. Concurrent enrollment in Lab. Prerequisite: A grade of "C" or better in MATH 095 or qualifying score on placement exam. [GE]

FIELD SURVEY II

SURV 122

5 Credits

33 hours of lecture

44 hours of lab

Theories of electronic distance measurement, instrument calibration and analysis; principles of route location and design; theories of circular, parabolic, and spiral curves; highway and railway geometric design; area and volumes of earthwork; and mass diagrams. Prerequisite: A grade of "C" or better in SURV 121. [GE]

SURVEY TECHNOLOGY SEMINAR

SURV 123

2 Credits

22 hours of lecture

Survey safety, ethics, and communication. Problem solving methods, procedures, and human relations related to on-the-job work experience in field surveying. Prerequisite: Completion of, or concurrent enrollment in, SURV 121. [GE]

INTRODUCTION TO GIS

SURV 125

3 Credits

33 hours of lecture

Introduction to Geographic Information Systems (GIS) methods and theory. Background and development of GIS technology. Introduction to relational and spatial databases and spatial analysis. Prerequisite: A grade of "C" or better in MATH 089 or 090, or placement in MATH 091 or higher. [GE]

ROUTE SURVEYING

SURV 163

5 Credits

33 hours of lecture

44 hours of lab

Introduction to elements of horizontal and vertical route alignment and layout. Use design software and a total station for the construction of a section of road. Include the construction of a topographic map, a centerline alignment, and a final plan and profile showing centerline alignment. Use of topographic data for earthwork computations for proposed route. Prerequisite: A grade of "C" or better in SURV 162. [GE]

CO-OP WORK EXPERIENCE

SURV 199

1 - 5 Credits

165 hours of clinical

Work-based learning experience that enables students to apply specialized occupational theory, skills and concepts. Specific objectives are developed by the College and the employer. Prerequisite: A grade of "C" or better in SURV 121. [GE]

BOUNDARY SURVEYS

SURV 202

4 Credits

44 hours of lecture

Principles and laws relating to boundary surveys, including their creation, ownership, and the role of the surveyor; introduction to the Public Land Survey System, including history, proportioning, subdividing and evidence analysis. Topics include boundary history and boundary surveys, rights in land, junior/senior title rights, retracement of originals surveys, deed first/survey first, common and case law, ranking/prioritizing evidence, controlling monuments and corners, errors in legal descriptions and plats. Prerequisite: A grade of "C" or better in SURV 121. [GE]

LEGAL DESCRIPTIONS

SURV 203

3 Credits

33 hours of lecture

Research and practice pertaining to the legal aspects of writing land description documents used in real property; written research project required. Prerequisite: A grade of "C" or better in SURV 121. [GE]

BOUNDARY LAW I

SURV 223

3 Credits

33 hours of lecture

Introduction to statute law, common law, case law, and legal principles of land boundaries and the practice of land surveying in Washington. Topics include an introduction to principles of professional practice and ethical consideration. Prerequisite: A grade of "C" or better in SURV 121. [GE]

SUBDIVISION PLANNING A & PLATTING

SURV 225

3 Credits

33 hours of lecture

A study of selected state laws and regulations pertaining to the surveying profession that affect the surveying of division of lands; layout and design of subdivisions; environmental considerations and site analysis procedures. Prerequisite: A grade of "C" or better in SURV 102 and 122. [GE]

ARC GIS I

SURV 250

4 Credits

22 hours of lecture

44 hours of lab

Introduction to ArcGIS. GIS concepts, methodologies, and techniques. Prerequisite: A grade of "C" or better in SURV 125. [GE]

SURVEY SOFTWARE APPLICATIONS

SURV 264 3 Credits
22 hours of lecture 22 hours of lab

Use of surveying and related software to solve and plot assignments in traverse calculations, horizontal and vertical curve alignments, profiles, contours, and earthwork calculations. Some hand generated plots and calculations will be made to supplement the computer calculations. Prerequisite: A grade of "C" or better in SURV 121. [GE]

SELECTED TOPICS

SURV 280 1 - 6 Credits
44 hours of lecture

Course focuses on selected topics in Surveying. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS

SURV 290 1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

Tutoring

TUTORING

TUTR 185 1 - 3 Credits
66 hours of lab

Introduction to methods and techniques in tutoring. Tutoring training assignments in various disciplines. [GE]

TUTORING-WRITING

TUTR 186 1 - 3 Credits
66 hours of lab

Introduction to strategies for effectively tutoring writers at all stages of the writing process and experience working one-on-one with writing across the disciplines. [GE]

Welding

WELDING FABRICATION

WELD 056 1 - 2 Credits
44 hours of lab

Opportunity for students to organize and complete projects. Also to complete welder certification. Concurrent enrollment in the welding program or journeyman level. Prerequisite: Consent of Instructional Unit.

RELATED WELDING FOR DIESEL

WELD 101 6 Credits
33 hours of lecture 66 hours of lab

Instruction and practice in related welding for students enrolled in the Diesel Technology program. Oxy-acetylene and electric arc welding processes will be covered. [GE]

RELATED WELDING FOR AUTOMOTIVE

WELD 105 3 Credits
22 hours of lecture 22 hours of lab

Instruction and practice in related welding for students enrolled in the Automotive Technology program. Oxy-acetylene and gas metal arc welding processes will be covered. [GE]

EXPLORING WELDING I

WELD 107 6 Credits
33 hours of lecture 66 hours of lab

Instruction and practice of arc welding processes, oxyfuel processes, and fabrication machinery for beginning to ad-

vanced welders. Specialized instruction and American Welding Society welder certification is available to advanced students. [GE]

EXPLORING WELDING II

WELD 108 4 Credits
22 hours of lecture 44 hours of lab

Instruction and practice of arc welding processes, oxyfuel processes, and fabrication machinery for beginning to advanced welders. Specialized instruction and American Welding Society welder certification is available to advanced students. [GE]

WELDING BLUEPRINT READING

WELD 110 4 Credits
44 hours of lecture

Interpretation of welding blueprints, welding symbols, tolerances and structural shapes. [GE]

INTRODUCTION TO WELDING INDUSTRY

WELD 111 3 Credits
33 hours of lecture

Welding and shop safety, oxy-fuel theory (fusion, welding, braze welding, brazing, flame cutting), shielded metal arc welding, filler metal identification, joint design, welding codes and specifications. Concurrent enrollment in WELD 112 required. [GE]

OXY-ACETYLENE AND SHIELDED METAL ARC LAB

WELD 112 10 Credits
55 hours of lecture 110 hours of lab

Shop practice in concepts and topics covered in WELD 111 including three weeks of oxy-fuel applications and cutting, and seven weeks of shielded metal arc using E6010/E6011 electrode, and related processes. Concurrent enrollment in WELD 111 required. [GE]

SHIELDED METAL ARC WELDING THEORY I

WELD 113 3 Credits
33 hours of lecture

Welding and shop safety, S.M.A.W. power sources, and basic metallurgy. Weld evaluation and quality control, destructive and non-destructive testing and metal removal processes. Concurrent enrollment in WELD 114 required. Prerequisite: WELD 111. [GE]

SHIELDED METAL ARC WELDING LAB I

WELD 114 10 Credits
55 hours of lecture 110 hours of lab

Application of concepts and topics covered in WELD 113. Ten weeks shielded metal arc welding using E7018 electrode in all positions, and related processes. Concurrent enrollment in WELD 113 required. Prerequisite: WELD 112. [GE]

SHIELDED METAL ARC WELDING THEORY II

WELD 115 3 Credits
33 hours of lecture

Welding fabrication, pipe welding, repair and maintenance welding, and special welding processes using shielded metal arc, and oxy-fuel processes. Concurrent enrollment in WELD 116 required. Prerequisite: WELD 113. [GE]

SHIELDED METAL ARC WELDING LAB II

WELD 116 10 Credits
55 hours of lecture 110 hours of lab

Application of concepts and topics covered in WELD 115 to do a variety of projects covering fabrication and repair. Concurrent enrollment in WELD 115 required. Prerequisite: WELD 114. [GE]

ARC/OXY FUEL WELDING

WELD 117 6 Credits
33 hours of lecture 66 hours of lab
Welding theory and practical applications in the use of oxy-fuel equipment and shielded metal arc welding (stick). Designed for beginners to intermediate welders. [GE]

WIRE FEED AND TIG WELDING I

WELD 118 6 Credits
33 hours of lecture 66 hours of lab
Welding theory and practical applications in the use of the Wire Feed Welding process and use of the TIG Welding process. Designed for beginners to intermediate welders. [GE]

WIRE FEED AND TIG WELDING II

WELD 119 6 Credits
33 hours of lecture 66 hours of lab
Welding theory and practical applications in the use of the Wire Feed process and use of the TIG Welding process. Designed for intermediate to advanced welders. [GE]

WELDED SCULPTURE LAB I

WELD 120 3 Credits
66 hours of lab
Development of a rudimentary expressive design language using welded metal as a medium. Exploration of beginning welding and metal-working skills. Concurrent enrollment in ART 295 required. [GE]

WELDING SCULPTURE LAB II

WELD 121 3 Credits
66 hours of lab
Three dimensional design problems are explored while creating a welded metal sculpture. Gas metal arc welding and plasma arc cutting are introduced. Use of hydraulic power equipment and metal cut-off equipment is covered. Concurrent enrollment in ART 296 required. [GE]

WELDED SCULPTURE LAB III

WELD 122 3 Credits
66 hours of lab
A fabricated welded metal sculpture is created while learning advanced metal working skills. The gas tungsten arc welding process and resistance welding are covered. Concurrent enrollment in ART 297 required. [GE]

COOPERATIVE WORK EXPERIENCE

WELD 199 1 - 5 Credits
165 hours of clinical
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Prerequisite: Consent of Instructional Unit. [GE]

GAS TUNGSTEN ARC WELDING

WELD 221 3 Credits
33 hours of lecture
Tungsten inert gas welding of ferrous and non-ferrous metals. Study of the various types of shielding gases and filler metals. [GE]

GAS TUNGSTEN ARC WELDING LAB

WELD 222 10 Credits
55 hours of lecture 110 hours of lab
Application of concepts and topics covered in WELD 221. Concurrent enrollment in WELD 221 required. [GE]

SEMI-AUTOMATIC WELDING

WELD 223 3 Credits
33 hours of lecture
Semi-automatic production welding of ferrous and non-ferrous metals. Short arc, flux core and spray arc welding processes. Effect of various shielding gases and filler metals. [GE]

SEMI-AUTOMATIC WELDING LAB

WELD 224 10 Credits
55 hours of lecture 110 hours of lab
Application of concepts and topics covered in WELD 223. Concurrent enrollment in WELD 223 required. [GE]

SPECIAL WELDING PROCESSES

WELD 225 3 Credits
33 hours of lecture
Submerged arc, resistance, welder certification, weld procedures, GMAW pulse arc, non-ferrous metals. Concurrent enrollment in WELD 226 required. Prerequisite: WELD 223 or consent of Instructional Unit. [GE]

PRODUCTION WELDING PROCESSES

WELD 226 10 Credits
55 hours of lecture 110 hours of lab
Application of concepts and topics covered in WELD 225. Concurrent enrollment in WELD 225 required. Prerequisite: WELD 224 or consent of Instructional Unit. [GE]

ELEMENTARY METALLURGY

WELD 235 2 Credits
22 hours of lecture
Physical metallurgy oriented towards the metal working trades, ferrous and non-ferrous metals, manufacturing methods, material classification and identification, thermal processing, and joining. Concurrent enrollment in WELD 236 required. [GE]

ELEMENTARY METALLURGY LAB

WELD 236 2 Credits
44 hours of lab
Application of physical metallurgy oriented towards the metal working trades, ferrous and non-ferrous metals, manufacturing methods, material classification and identification, thermal processing, and joining. Concurrent enrollment in WELD 235 required. [GE]

SELECTED TOPICS

WELD 280 1 - 6 Credits
66 hours of lecture
Selected topics in Welding as listed in the quarterly class schedule. Repeatable for credit. [GE]

SPECIAL PROJECTS

WELD 290 1 - 5 Credits
Projects assigned according to needs and abilities of the student. Hours arranged with instructor. Maximum of 15 credits allowed toward a certificate or degree. Prerequisite: Consent of Instructional Unit required. [GE]

Women's Studies

INTRODUCTION TO WOMEN'S STUDIES

WS 101 5 Credits
55 hours of lecture
Essential issues of feminism and theories of oppression and privilege particularly with respect to gender, race, class, sexuality, age, and ability. Topics may include women and gender socialization, family, work, politics, health, sexuality, body image, violence, spirituality, art, and culture. Fulfills either humanities or social science distribution

requirements for the associate degree. Prerequisite: A grade of "C" or better in ENGL 098 taken at 5 credits or recommended score on the writing skills placement test for ENGL& 101. [HA, SE, SS]

WOMEN AROUND THE WORLD

WS 201 3 Credits

33 hours of lecture

Study of current issues affecting women. International feminism, reproductive rights, women in leadership, and affirmative action from a cross-cultural perspective. Fulfills either humanities or social science distribution requirements for the associate degree. [HA, SE, SS]

WOMEN'S CULTURE

WS 210 3 Credits

33 hours of lecture

A study of women's art and women in the arts, with emphasis on the roles and images of women in fine and folk art, music, film and mythology. Examines the historical events and sociological factors influencing those roles and images. Fulfills either humanities or social science distribution requirements for the A.A. transfer degree. [HA, SE, SS]

RACE, CLASS, GENDER AND SEXUALITY

WS 220 5 Credits

55 hours of lecture

Studies the social construction of difference, inequality and privilege in race, class, gender, sex, and sexual orientation in the U.S. Examines how these categories are created, maintained, and experienced; how meaning is assigned to those categories; and how social constructions can be challenged. Prerequisite: WS 101. [SE]

SELECTED TOPICS

WS 280 1 - 3 Credits

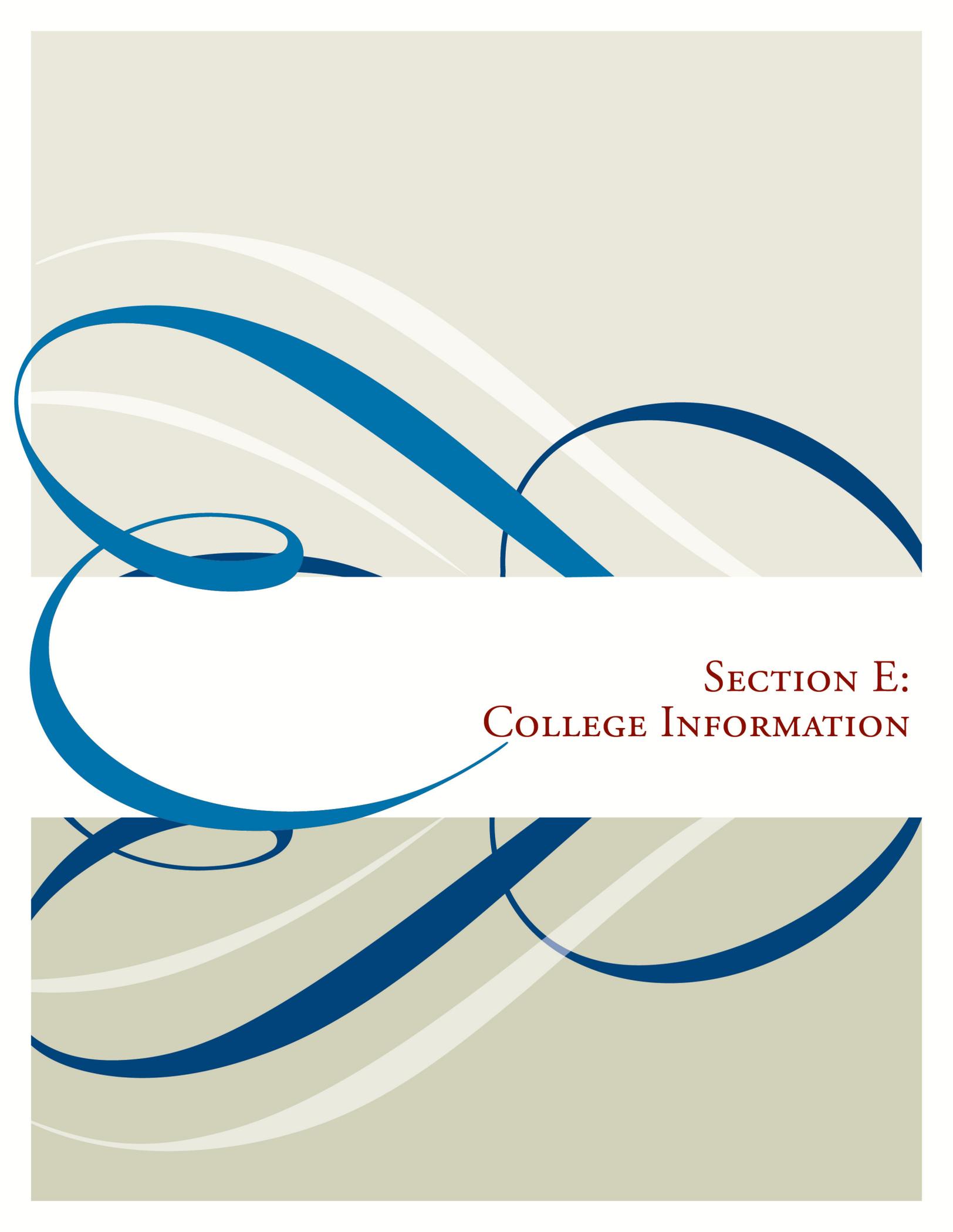
33 hours of lecture

This course focuses on selected topics in women's studies. Topics vary and course theme and content change to reflect new topics. This course may be repeated for credit. [SE]

SPECIAL PROJECTS

WS 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]



SECTION E:
COLLEGE INFORMATION

SECTION E: College Information

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History

In the midst of the Great Depression, a group of educators boldly embraced a dream of higher education for Southwest Washington. That dream became reality when Clark College was founded as a private junior college in 1933.

The college was originally located in Vancouver's historic Hidden House, where it remained through 1937. During the next two decades, the college was housed at four different locations. In 1951, the college launched an evening program in the Applied Arts Center, the first building on the current 101-acre campus in Vancouver's Central Park.

Initial accreditation was granted during the 1936-37 academic year following a visit by professors from the University of Washington. In 1948, the college first received accreditation from the organization known as the Northwest Association of Secondary and Higher Schools. Today, that organization is known as the Northwest Commission on Colleges and Universities (NWCCU). Since its first accreditation in 1937, through periodic reviews, Clark College has remained accredited throughout its history.

Clark College first received state financial support in 1941. Five years later, the college was placed under the general supervision of the State Board of Education, with the Vancouver School Board serving as its policy-making body.

In 1967, the Washington State Legislature created a state system of community college districts. Clark Community College District No. 14, one of 34 Washington community and technical colleges, serves residents of Clark, Skamania and west Klickitat counties. The college is governed by a five-member board of trustees appointed by the Governor.

Accreditation

Clark College is accredited by the Northwest Commission on Colleges and Universities (8060 165th Avenue NE, Suite 100, Redmond, WA 98052), a regional institutional accrediting agency recognized by the Secretary of the U.S. Department of Education and the Council for Higher Education Accreditation.

Several of the college's professional/technical programs are also accredited by program-specific accrediting bodies. The associate degree nursing program is accredited by the National League for Nursing Accrediting Commission. The dental hygiene program is accredited by the Commission on Dental Accreditation. The automotive technology program is accredited by the National Automotive Technicians Education Foundation and certified by the National Institute for Automotive Service Excellence. The medical assistant certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs.

College Assessment

Clark College is committed to fostering the academic achievement and personal development of its students. To carry out that commitment, the college continuously gathers information about the effectiveness of its programs and services, the progress of its students toward educational and personal goals, and the achievements and perspectives of its alumni. This information is used to monitor program effectiveness, to recognize educational trends and opportunities, and to develop a sound, factual basis for academic planning.

Each Clark College student is expected to participate in the college's assessment efforts. Programs and services use various means to gather assessment information, including portfolios, performances, achievement tests, comprehensive examinations, surveys, interviews, focus groups, evaluation forms, and other methods.

Student Rights and Responsibilities

Clark College is committed to providing an academic community conducive to student success. Student rights and responsibilities are comprehensively defined in the Code of Student Conduct. For a complete copy of this policy, refer to the Code of Student Conduct section of this catalog, or the Clark College website.

Notice of Nondiscrimination and Equal Opportunity

Clark College affirms a commitment to freedom from discrimination for all members of the college community. Clark College expressly prohibits discrimination against any person on the basis of race, creed, religion, color, national origin, sex, age, sexual orientation, gender identity, gender expression, marital status, the presence of any physical, sensory or mental disability, or status as a disabled or honorably discharged veteran and military status. The responsibility for, and the protection of, this commitment extends to students, faculty, administration, staff, contractors, and those who develop or participate in college programs. It encompasses every aspect of employment and every student and community activity.

Discrimination is prohibited by Title VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 503 and 504 of the Rehabilitation Act of 1973, Americans with Disabilities Act of 1990, WLAD (RCW 49.60), Age Discrimination in Employment Act Amendment of 1978, Vietnam Era Veterans Readjustment Assistant Act of 1974, Equal Pay Act of 1963, Executive Orders 11246 and 11375, and federal and state statutes and regulations.

Persons with concerns about discrimination or equal opportunity should refer to the Discrimination and Harassment Grievance Procedure on page E19.

Cultural Pluralism and Respect for Differences

Student success is best achieved when diversity and multiple perspectives are represented. For students to be successful in today's global community and economy it is imperative that the college support teaching, learning and interactions that build a strong global perspective. Clark College is strongly committed to cultural, ethnic and racial pluralism and fostering respect for differences and multiple perspectives. This commitment means that individuals representing the multitude of diversity within the college must strive to interact in a dynamic and collaborative way while maintaining and valuing differences, and leveraging similarities and common goals.

Code of Student Conduct

Chapter 132N-121 WAC (formerly Chapter 132N-120 WAC)

Last update: March 20, 2010

WAC 132N-121-010	Code of student conduct
WAC 132N-121-020	Authority
WAC 132N-121-030	Definitions
WAC 132N-121-040	Jurisdiction
WAC 132N-121-045	Students studying abroad
WAC 132N-121-050	Student rights
WAC 132N-121-060	Grounds for discipline
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WAC 132N-121-100	Committee on student conduct
WAC 132N-121-110	Hearing procedures before the committee on student conduct
WAC 132N-121-112	Decision by the committee on student conduct and notification
WAC 132N-121-120	Recordkeeping
WAC 132N-121-150	Summary suspension proceedings
WAC 132N-121-151	Appeals from summary suspension hearing
WAC 132N-121-500	Classroom misconduct and authority to suspend for no more than one day

WAC 132N-121-010 Code of student conduct.

- (1) Clark College provides its community and students with education and services of the highest quality. We do this in a manner which exhibits concern and sensitivity to students, faculty, staff and others who utilize our services and facilities. It is essential that members of Clark College exhibit appropriate and conscientious behavior in dealing with others.
- (2) Clark College expects all students to conduct themselves in a manner consistent with its high standards of scholarship and conduct. Student conduct, which distracts from or interferes with accomplishment of these purposes, is not acceptable. Students are expected to comply with these standards of conduct for students both on and off campus and acknowledge the college's authority to take disciplinary action.
- (3) Admission to Clark College carries with it the presumption that students will conduct themselves as responsible members of the academic community. This includes an expectation that students will obey the law, comply with policies, procedures and rules of the college and its departments, maintain a high standard of integrity and honesty and respect the rights, privileges and property of other members of Clark College.
- (4) It is assumed that students are and wish to be treated as adults. As such, students are responsible for their conduct. These standards of conduct for students promote Clark College's educational purposes and provide students a full understanding of their rights and responsibilities. Sanctions for violations of the standards of conduct for students will be administered under this chapter. When violations of laws of the state of Washington and/or the United States are also involved, the college may refer such matters to proper authorities and in the case of minors, this conduct may be referred to parents or legal guardians.

WAC 132N-121-020 Authority.

The board of trustees, acting pursuant to RCW 28B.50.140(14), delegates to the president of the college the authority to administer disciplinary action. Administration of the disciplinary procedures is the responsibility of the vice-president of student affairs or designee. The student conduct officer shall serve as the principal investigator and administrator for alleged violations of this code.

WAC 132N-121-030 Definitions.

As used in this chapter, the following words and phrases shall be defined as follows:

- (1) "ASCC" means the associated students of Clark College as defined in the constitution of that body.
- (2) "Assembly" means any overt activity engaged in by one or more persons, the object of which is to gain publicity, advocate a view, petition for a cause, or disseminate information to any person, persons, or group of persons.
- (3) "Board" means the board of trustees of Community College District No. 14, state of Washington.
- (4) "College" means Clark College and any other community college centers or facilities established within Washington state Community College District No. 14.

- (5) “College community” means trustees, students, staff, faculty, and visitors on college-owned or controlled facilities.
- (6) “College facilities” and “college facility” mean and include any and all real and personal property owned, rented, leased or operated by the board of trustees of Washington state Community College District No. 14, and shall include all buildings and appurtenances attached thereto and all parking lots and other grounds. College facilities extend to distance education classroom environments, and agencies or institutions that have educational agreement with the college.
- (7) “College official” includes any person employed by the college performing assigned duties.
- (8) “College premises” includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the college.
- (9) “Committee on student conduct” is the body authorized by the vice-president of student affairs to determine whether a student has violated the code of student conduct and the type of sanction(s) imposed when a violation has been committed.
- (10) “Complainant” means any person who submits a charge alleging that a student violated the code of student conduct.
- (11) “Controlled substance” means and includes any drug or substance as defined in chapter 69.50 RCW as now law or hereafter amended.
- (12) “Day” means calendar day, and does not include Saturdays, Sundays, or legal holidays. Timelines set forth in this chapter may be extended in unusual circumstances as determined by the vice-president for student affairs. Also see WAC 10-08-080 Computation of time, adopted pursuant to WAC 132N-108-010.
- (13) “Faculty member” and “instructor” mean any employee of Community College District No. 14 who is employed on a full-time or part-time basis as a teacher, instructor, counselor or librarian.
- (14) “President” means the president of Clark College and Community College District No. 14, state of Washington, and for the purposes of these rules includes “acting president” or the delegated authority in the absence of the president.
- (15) “RCW” means Revised Code of Washington which can be accessed at <http://apps.leg.wa.gov/rcw/>.
- (16) “Student” means and includes any person who is registered for classes or is formally in the process of applying for admission to the college. Persons who are not registered for a particular term but who have a continuing relationship with the college, or persons who withdraw after allegedly violating the conduct code, are considered “students.”
- (17) “Student conduct officer (SCO)” means the college administrator designated by the vice-president of student affairs who is responsible for investigating alleged violations of this code and administering the rights and responsibilities code. The term also includes a college official designated by the student conduct officer to act on his/her behalf in matters related to this chapter.
- (18) “Student organization” means any number of students who have met the formal requirements of clubs and organizations.
- (19) “Trespass” means the definition of trespass as contained within chapter 9A.52 RCW, as now law or hereafter amended.

WAC 132N-121-040 Jurisdiction.

- (1) The standards of conduct for students adopted herein apply to conduct that occurs on college premises, at college-sponsored activities, and to off-campus conduct as outlined below that adversely affects the well-being of the Clark College community and/or the pursuit of its objectives. Jurisdiction extends to locations in which students are engaged in official college activities including, but not limited to, foreign or domestic travel activities funded by ASCC, athletic events, training internships, cooperative and distance education, practicums, supervised work experiences or any other college-sanctioned social or club activities. Students are responsible

for their conduct from the time of application for admission through the actual receipt of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment. These standards shall apply to a student's conduct even if the student withdraws from college while a disciplinary matter is pending. The vice-president of student affairs has sole discretion, on a case-by-case basis, to determine whether the code of student conduct will be applied to conduct occurring off campus.

- (2) Faculty members, college employees, students, and members of the public who breach or aid or abet another in the breach of any provision of this chapter shall be subject to:
 - (a) Possible prosecution under the state criminal law;
 - (b) Any other civil or criminal remedies available to the public; or
 - (c) Appropriate disciplinary action pursuant to the state of Washington personnel resource board rules, collective bargaining agreements, or the district's policies and regulations.
- (3) This chapter is not exclusive, and where conduct becomes known which may also violate any other rule or provision of law, nothing herein shall limit the right or duty of any person to report elsewhere or seek another remedy for that conduct.

WAC 132N-121-045 Students studying abroad.

Students who participate in any college-sponsored or sanctioned international study program shall observe the following:

- (1) The laws of the host country;
- (2) The academic and disciplinary regulations of the educational institution or residential housing program where the student is studying;
- (3) Any other agreements related to the student's study program in another country; and
- (4) Clark College's standards of conduct for students.

WAC 132N-121-050 Student rights.

As members of the academic community, students are encouraged to develop the capacity for critical judgment and to engage in an independent search for truth. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. Students should exercise their freedom with responsibility. The responsibility to secure and to respect general conditions conducive to the freedom to learn is shared by all members of the college community.

The following enumerated rights are guaranteed to each student within the limitations of statutory law and college policy which are deemed necessary to achieve the educational goals of the college:

- (1) Academic freedom.
 - (a) Students are guaranteed the rights of free inquiry, expression, and assembly upon and within college facilities that are generally open and available to the public.
 - (b) Students are free to pursue appropriate educational objectives from among the college's curricula, programs, and services, subject to the limitations of RCW 28B.50.090 (3)(b).
 - (c) Students shall be protected from academic evaluation which is arbitrary, prejudiced, or capricious, but are responsible for meeting the standards of academic performance established by each of their instructors.
 - (d) Students have the right to a learning environment which is free from unlawful discrimination, inappropriate and disrespectful conduct, and any and all harassment, including sexual harassment.

- (2) Due process.
 - (a) The rights of students to be secure in their persons, quarters, papers, and effects against unreasonable searches and seizures is guaranteed.
 - (b) No disciplinary sanction may be imposed on any student without notice to the accused of the nature of the charges.
 - (c) A student accused of violating this code of student conduct is entitled, upon request, to procedural due process as set forth in this chapter.

WAC 132N-121-060 Grounds for discipline.

Discipline may be imposed for the commission or attempted commission (including aiding or abetting in the commission or attempted commission) of the following types of misconduct, as well as such other violations as may be specified in college regulations:

- (1) Obstruction or disruption of:
 - (a) Any instruction, research, administration, disciplinary proceeding, or other college activity, whether occurring on or off college property; or
 - (b) Any other authorized noncollege activity when the conduct occurs on college premises.
- (2) Assault, physical abuse, verbal abuse, threats, intimidation, harassment, coercion, or other conduct which harms, threatens, or endangers the health or safety of any person.
- (3) Attempted or actual damage to, theft of, or misuse of real or personal property of:
 - (a) The college or state;
 - (b) Any student or college officer, employee, or organization; or
 - (c) Any other person or organization lawfully present on college property; or possession of stolen property.
- (4) Unauthorized possession or unauthorized use of college equipment and supplies including, but not limited to, converting college equipment or supplies for personal gain or use without proper authority.
- (5) Failure to comply with the directions of a college officer or employee who is acting in the legitimate performance of his/her duties, and/or failure to properly identify oneself to these persons when requested to do so.
- (6) Participation in any activity which unreasonably disrupts the operations of the college or infringes on the rights of another member of the college community, or leads or incites another person to engage in such an activity.
- (7) Possession or use of firearms, explosives, dangerous chemicals or other dangerous weapons which can be used to inflict bodily harm or to damage real or personal property is prohibited on the college campus, at any other facilities leased or operated by the college, or at any activity under the administration or sponsorship of the college.

Exceptions to this policy are permitted when the weapon is used in conjunction with an approved college instructional program, is carried by duly constituted law enforcement officer, or is otherwise permitted by law.
- (8) Hazing. Any method of initiation into a student club or organization, or any pastime or amusement engaged in with respect to such a group or organization that causes, or is likely to cause, bodily danger or physical harm, or serious mental or emotional harm, to any student or other person attending the college as described in RCW 28B.10.900.
- (9) Initiation violation. Conduct associated with initiation into a student club or organization, or any pastime or amusement engaged in with respect to such a group or organization, not amounting to a violation of RCW 28B.10.900. Conduct covered by this section may include embarrassment, ridicule, sleep deprivation, unprotected speech amounting to verbal abuse, or personal humiliation.

- (10) Use, possession, delivering, selling or being under the influence of alcoholic beverages, except at sanctioned events approved by the college president or designee and in compliance with state law; or public intoxication.
- (11) Use, possession, delivering, selling or being under the influence of legend drugs, including anabolic steroids, narcotic or any other controlled substance, except upon valid prescription by a licensed health care professional or practitioner.
- (12) Obstruction of the free flow of pedestrian or vehicular movement on college premises or at a college activity.
- (13) Conduct which is disorderly, lewd, or indecent, disturbing the peace, or assisting or encouraging another person to disturb the peace. Disorderly conduct includes, but is not limited to, any unauthorized use of electronic or other devices to make an audio or video record of any person while on college premises without his or her prior knowledge or without his or her effective consent, when such a recording is likely to cause injury or distress. This includes surreptitiously capturing images of another person in a gym, locker room, or restroom.
- (14) Discrimination on the basis of race, color, religion, creed, national origin, sexual orientation, mental, physical, sensory disability, age or sex, gender identity, gender expression, political affiliation, disabled veteran status, marital status, honorably discharged veteran or Vietnam-era veteran status.
- (15) Sexual harassment. This includes, but is not limited to, engaging in unwelcome sexual advances, requests for sexual favors, or other conduct of a sexual nature where such behavior offends the recipient or a third party, causes discomfort or humiliation, unreasonably interferes with a person's work or educational performance, or creates an intimidating, offensive, or hostile work or learning environment.
- (16) Stalking. Behavior or conduct either in person or through electronic communication in which a student willfully and repeatedly engages in a course of conduct directed at another person with the intent and/or reasonable effect of creating fear or emotional distress and where the college determines that such behavior or conduct serves no legitimate purpose.
- (17) Smoking or other tobacco usage is not permitted within the perimeter of Clark College property. This includes all college sidewalks, parking lots, landscaped areas, recreational areas, and buildings on Clark College property. See Clark College Administrative Procedures 510.030 for complete smoking/tobacco products policy.
- (18) Theft or abuse of computer facilities or information technology resources; use of computing facilities and resources to send obscene, abusive, harassing, or threatening messages; or violation of Student Computing Resources Policy. It is the obligation of students to be aware of their responsibilities as outlined in the Student Computing Resources Policy (http://www.clark.edu/student_services/computing_resources/policy.php).
- (19) Unauthorized possession, duplication, or other use of a key, keycard, or other restricted means of access to college property, or unauthorized entry onto or into college property.
- (20) Abuse or misuse of any of the procedures relating to the code of student conduct, including:
 - (a) Failure to obey the notice from the committee on student conduct or college official to appear for a meeting or hearing as part of the student conduct system.
 - (b) Willful destruction, falsification, distortion, or misrepresentation of information before the committee on student conduct or the student conduct officer.
 - (c) Disruption or interference with the orderly conduct of a committee on student conduct proceeding.
 - (d) Filing fraudulent charges or initiating a student conduct proceeding in bad faith.
 - (e) Attempting to discourage an individual's proper participation in, or use of, the student conduct system.
 - (f) Attempting to influence the impartiality of a member of the committee on student conduct prior to or during the course of a committee on student conduct proceeding.
- (g) Harassment (verbal or physical) or intimidation of a member of the committee on student conduct prior to, during, or after a student conduct code proceeding.

- (h) Failure to comply with any term or condition of any disciplinary sanction(s) imposed under the standards of conduct for students.
 - (i) Influencing or attempting to influence another person to commit an abuse of the student conduct code system.
- (21) Trespassing. Knowingly entering or remaining unlawfully in or on college premises or any portion thereof. Any person who has been given notice by a college official excluding him or her from all or a portion of college premises is not licensed, invited, or otherwise privileged to enter or remain on the identified portion of college premises, unless given prior explicit written permission by a college official.
 - (22) Operation of any motor vehicle on college property in an unsafe manner or in a manner which is reasonably perceived as threatening the health or safety of another person.
 - (23) Violation of any federal, state, or local law, rule, or regulation.
 - (24) Aiding, abetting, inciting, encouraging, or assisting another person to commit any of the foregoing acts of misconduct.
 - (25) Tampering with an election conducted by or for students.

WAC 132N-121-062 Academic dishonesty.

Acts of academic dishonesty include:

- (1) Cheating, which includes using, or attempting to use, any material, assistance, or source which has not been authorized by the instructor to satisfy any expectation or requirement in an instructional course; an act of deceit by which a student attempts to misrepresent academic skills or knowledge; unauthorized or attempted unauthorized copying or collaboration; or acquiring, without permission, tests or other academic material belonging to a member of the college faculty or staff.
- (2) Plagiarism, which includes using another person's ideas, words, or other work in an instructional course without properly crediting that person. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.
- (3) Submitting information that is known to be false (while concealing that falsity).
- (4) Forgery, alteration or misuse of any instrument of identification or any document or record used by the college.
- (5) Fabrication, which is the intentional misrepresentation, invention or counterfeiting of information in the course of an academic activity. Fabrication includes:
 - (a) Counterfeiting data, research results, information, or procedures with inadequate foundation in fact;
 - (b) Counterfeiting a record of internship or practicum experiences;
 - (c) Submitting a false excuse for absence or tardiness;
 - (d) Unauthorized multiple submission of the same work; sabotage of others' work.
- (6) Engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.
- (7) Collusion. Facilitating dishonesty, failing to report known incidents of academic dishonesty; assisting another to commit an act of academic dishonesty, such as paying or bribing someone to acquire a test or assignment, or increase the score on a test or assignment; taking a test or doing an assignment for someone else; participating in obtaining or distributing any part of a test or any information about a test; or allowing someone to do these things for one's own benefit.
- (8) Knowingly furnishing false information to any college official, faculty member, or office including, but not limited to, submission of fraudulent transcripts from other institutions.
- (9) Acts of academic dishonesty will be reported by the faculty member to the vice-president of student affairs' designated student conduct officer.

WAC 132N-121-065 Trespass.

The vice-president of student affairs or designee shall have the authority and power to:

- (1) Prohibit the entry, or withdraw the license or privilege of any person or group of persons to enter onto or remain in any college property or facility; or
- (2) Give notice against trespass by any manner provided by law, to any person, persons, or group of persons against whom the license or privilege has been withdrawn or who have been prohibited from, entering onto or remaining upon all or any portion of college property or a college facility; or
- (3) Order any person, persons, or group of persons to leave or vacate all or any portion of college property or a college facility.

Such power and authority may be exercised to halt any event which is deemed to be unreasonably disruptive of order or impedes the movement of persons or vehicles or which disrupts or threatens to disrupt the ingress and/or egress of persons from facilities owned and/or operated by the college. Any individual remaining on or reentering college property after receiving notice that his or her license or privilege to be on that property has been revoked shall be subject to disciplinary action and/or charges of criminal trespass.

WAC 132N-121-070 Disciplinary sanction.

The following sanctions may be imposed by the student conduct officer on any student found to have violated the code of student conduct. In the case of minors, misconduct may be referred to parents or legal guardians pursuant to Family Educational Rights and Privacy Act (FERPA) guidelines. More than one sanction may be imposed for any one violation.

- (1) Warning. Notice to a student, either verbally or in writing, by the student conduct officer that the student has failed to satisfy the college's expectations regarding conduct. Such warnings will include a statement that continuation or repetition of the specific conduct involved or other misconduct may be cause for more serious disciplinary action. There shall be no appeal from a warning.
- (2) Reprimand. Formal action censuring a student for violating the student code of conduct. Reprimands shall be made in writing to the student by the student conduct officer. A reprimand indicates to the student that continuing or repeating the specific conduct involved or other misconduct will result in more serious disciplinary action. There shall be no appeal from a reprimand.
- (3) Disciplinary probation. Formal action placing conditions upon the student's continued attendance. Notice shall be in writing and shall specify the period of probation and the conditions, such as limiting the student's participation in extracurricular activities. Probation may be for a specific term or may extend to graduation or other termination of the student's enrollment in the college. A student on probation is not eligible to run for or hold an office in any student organization. Repetition of the conduct which resulted in probation or failure to complete conditions of probation during the probationary period, may be cause for suspension or other disciplinary action.
- (4) Loss of privileges. Denial of specified privileges for a designated period of time. Violation of any conditions in the written notice of loss of privileges may be cause for further disciplinary action.
- (5) Suspension. Temporary dismissal from the college and termination of student status. Notice shall be given in writing and specify the duration of the dismissal and any special conditions that must be met before readmission. Refund of tuition or fees for the quarter in which disciplinary action is taken shall be in accordance with the college's refund policy.
- (6) Expulsion. Permanent termination of a student's status. Notice must be given in writing. The student may also be barred from college premises. There shall be no refund of tuition or fees for the quarter in which the action is taken but fees paid in advance for a subsequent quarter will be refunded.

- (7) Restitution. Requirement of a student to compensate for damage or loss to college or other property, or perform a public service activity. Failure to make restitution within the time limits established by the student conduct officer will result in suspension for an indefinite period of time. A student may be reinstated upon payment or completion of the required service activity.
- (8) Education. The college may require the student to complete an educational requirement directly related to the violation committed, at the student's expense.
- (9) Revocation of admission or degree. Admission to or a degree awarded from the college may be revoked for fraud, misrepresentation, or other violation of standards of conduct for students in obtaining the degree, or for other serious violations committed by a student prior to graduation.
- (10) Withholding degree. The college may withhold awarding a degree otherwise earned until the completion of the process set forth in this chapter, including the completion of all sanctions imposed.
- (11) No trespass order. A student may be restricted from college property based on his/her misconduct.
- (12) Assessment. The student may be required to have an assessment at the student's expense, such as alcohol/drug or anger management, by a certified professional, and complete the recommended treatment. The student will sign all necessary releases to allow the college access to the assessment. Recommendations as part of an assessment may be included as required conditions of a disciplinary probation, suspension, or reinstatement after a period of suspension.
- (13) Loss of recognition. A student organization's recognition may be withheld permanently or for a specific period of time. Loss of recognition is defined as withholding college services or administrative approval from a student organization. Services and approval to be withdrawn include intramural sports, information technology services, college facility use and rental, and involvement in organizational activities.
- (14) Hold on transcript or registration. This is a temporary measure restricting release of a student's transcript or access to registration. Upon satisfactory completion of the conditions of the sanction, the hold is released.
- (15) No contact order. A prohibition of direct or indirect physical, verbal, or written contact (to include electronic) with another individual or group.
- (16) Other than college expulsion or revocation or withholding of a degree, disciplinary sanctions are not made part of the student's academic record, but are part of the student's disciplinary record.
- (17) If a student's behavior is found to have been motivated by another's race, color, religion, creed, national origin, sexual orientation, mental, physical, sensory disability, age, sex, gender identity, gender expression, political affiliation, disabled veteran status, marital status, honorably discharged veteran or Vietnam-era veteran status, such finding is considered an aggravating factor in determining a sanction for such conduct.
- (18) Violation of any term or condition of any disciplinary sanction constitutes a new violation and may subject the student to additional sanctions.
- (19) A disciplinary sanction, except a warning, shall be imposed through written notice either personally delivered or sent to the student's last known address of record by regular mail or certified mail. Each notice of disciplinary action shall state:
 - (a) A reasonable description of the facts on which the action is based;
 - (b) The provision(s) of the student conduct code found to have been violated;
 - (c) The sanction(s) imposed; and
 - (d) The student's right to appeal a disciplinary action, except for a warning or reprimand.

WAC 132N-121-080 Initial disciplinary proceedings. (see page E25 for chart)

- (1) Any member of the college community may file a written complaint alleging that a student has committed a violation of the code of student conduct with the office of the vice-president of student affairs. The complaint

should state specifically the alleged violation and summarize the supporting evidence. If the student conduct officer determines the complaint has merit, the student conduct officer shall initiate disciplinary proceedings. The student may be placed on suspension pending commencement of disciplinary action, pursuant to the conditions set forth in WAC 132N-121-150.

- (2) A student accused of violating the code of student conduct shall be notified of an initial disciplinary proceeding and the opportunity to meet with the student conduct officer to resolve the case without a formal hearing. The student shall be provided with written notice including the specific complaint, the policy, procedure, or section of the code of student conduct allegedly violated, and the range of possible sanctions which might result from disciplinary proceedings. The student will be given seven days to respond. If the student fails to respond or fails to appear, the initial disciplinary hearing may be held in the student's absence and shall not preclude the student conduct officer from making a decision and imposing or recommending sanctions.
- (3) After considering the evidence in the case, and interviewing the student, if the student has appeared at the scheduled meeting, and reviewing the case with any new information, the student conduct officer may take any of the following actions:
 - (a) Terminate the proceedings and exonerate the student;
 - (b) Dismiss the case after whatever intervention and advice is deemed appropriate;
 - (c) Impose any of the disciplinary sanctions from WAC 132N-121-070.

WAC 132N-121-090 Appeals. (see page F26 for chart)

- (1) A student may appeal any disciplinary sanction imposed by the student conduct officer, other than warning or reprimand, by filing a written request with the chair of the committee on student conduct, within seven days from the date of receipt of the decision.
- (2) The request should state clearly whether the student is requesting the appeal to be heard as a brief adjudicative proceeding informally by the chair of the committee on student conduct or for the appeal to be conducted formally by the entire committee membership, in an adjudicative proceeding according to RCW 34.05.410. Appeals from a suspension or expulsion from the college shall be heard in an adjudicative proceeding.
- (3) Appeals conducted as a brief adjudicative proceeding.
 - (a) Where an adjudicative proceeding is neither required by law nor requested by the student or the college, the matter may be resolved informally in a brief adjudicative proceeding conducted in accordance with RCW 34.05.485. Brief adjudicative proceedings shall be conducted in any manner which will bring about a prompt, fair resolution of the matter. The chair of the committee on student conduct shall serve as the sole presiding officer of the brief adjudicative proceeding. The presiding officer shall give each party an opportunity to be informed of the college's view on the matter and the student's view of the matter. No witnesses may appear to testify. Within ten days of the brief adjudicative proceeding, the chair shall render a written decision which will include a brief statement of the reasons for the decision. This shall be an initial order. If no further administrative review is requested, the initial order shall become the final order.
 - (b) Within twenty-one days after the initial order has either been personally delivered or sent to the student's last known address of record by regular mail or certified mail, he or she may petition for administrative review by the vice-president of student affairs or designee. A copy of the petition must be served on all parties or their representatives at the time the petition is filed. The reviewing officer may be the vice-president or an administrator who has not been involved in the action. The review shall be governed by RCW 34.05.491. The decision of the vice-president of student affairs or designee is final and no further administrative review is available.
- (4) Appeals conducted as adjudicative proceedings by committee on student conduct. In all cases where the student is appealing suspension or expulsion from the college, the student shall be entitled to an adjudicative proceeding

under WAC 132N-121-110 if he or she files a proper written application for such a proceeding. The vice-president of student affairs shall be responsible for convening the committee on student conduct, setting the time and place of the hearing, and providing notice of the hearing as prescribed in RCW 34.05.434.

- (5) A decision of the committee on student conduct or a sanction imposed by the student conduct officer may be appealed in writing to the president within ten days following receipt of the committee decision.
 - (a) Except as required to explain the basis of new information, an appeal to the president is limited to a review of the verbatim record of the committee hearing and supporting documents for one or more of the following purposes:
 - (i) To determine whether the committee on student conduct hearing was conducted fairly in light of the charges, and whether information was presented in conformity with prescribed procedures giving the accused student a reasonable opportunity to prepare and to present a response to the allegations. Deviations from designated procedures are not a basis for sustaining an appeal unless significant prejudice is evident.
 - (ii) To determine whether the decision is supported by the evidence.
 - (iii) To determine whether the sanctions imposed are appropriate for the violation which the student was found to have committed.
 - (iv) To consider new information, sufficient to alter a decision, or other relevant facts not disclosed in the original hearing because such information and/or facts were not known to the student appealing at the time of the committee on student conduct hearing.
 - (b) The president shall review the record within fifteen days of the notice of appeal and make one of the following determinations:
 - (i) Affirm the decision and uphold the sanctions; or
 - (ii) Reverse the decision; or
 - (iii) Affirm the decision and modify the sanctions imposed.
 - (c) The president shall provide a written conclusion to all parties within twenty days after completion of his or her review.
 - (d) If the appeal is upheld, the matter shall be returned to the committee on student conduct to reopen the hearing to reconsider of the original determination and/or sanctions.
 - (e) If the appeal is not upheld, the president's decision shall be final.

WAC 132N-121-100 Committee on student conduct.

- (1) The committee on student conduct consists of five members. The committee shall provide a fair and impartial hearing and will make decisions on all disciplinary decisions appealed to it. The committee shall include:
 - (a) Two full-time students and two alternates appointed by the ASCC of Clark College vice-president of elections and appointments (one-year appointments);
 - (b) Two faculty members and two alternates appointed by the president or designee (two-year appointments, staggered terms);
 - (c) One member of the administration, but not the vice-president of student affairs, and one alternate appointed by the president of the college (two-year appointment).
- (2) Appointments to the committee will be made no later than November 1 of each academic year. Vacancies on the committee shall be filled as they arise.
- (3) Hearings may be heard by a quorum of three members of the committee so long as a faculty member and one student are included on the hearing panel. If the case involves academic dishonesty, at least two of the indi-

viduals hearing the case must be members of the faculty. The vice-president of student affairs shall appoint the chair and that person will continue in office until he or she resigns or is recalled by the vice-president of student affairs. The vice-president for student affairs may appoint a special presiding officer to the committee on student conduct in complex cases or in any case in which the student is represented by legal counsel. Special presiding officers may participate in committee deliberations but shall not vote.

- (4) Members of the committee on student conduct shall not participate in any case in which they are a defendant, complainant, or witness, in which they have direct or personal interest, prejudice, or bias, or in which they have acted previously in an advisory capacity. Any party may petition for disqualification of a committee member pursuant to RCW 34.05.425(4).

WAC 132N-121-110 Hearing procedures before the committee on student conduct.

- (1) An appeal before the committee on student conduct will be conducted as an adjudicative proceeding in accordance with RCW 34.05.413 through 34.05.476. The committee on student conduct shall commence the hearing within fifteen days after the written request has been received. The office of the vice-president of student affairs will notify the parties of the time and place of the hearing. The time limit for scheduling the hearing may be extended at the discretion of the vice-president of student affairs.
- (2) The presiding officer shall be the chair of the committee on student conduct. The presiding officer is responsible for:
 - (a) Regulating the course of the hearing in accordance with RCW 34.05.449 and applicable college rules;
 - (b) Taking whatever steps are necessary during the hearing to ensure that the process is conducted in a respectful and orderly manner; and
 - (c) Issuing and signing the written decision(s) of the committee.
- (3) The presiding officer is authorized to conduct prehearing conferences and/or to make prehearing decisions concerning the extent and forms of any discovery, the possibility of obtaining stipulations, admissions, settlement, and other procedural matters.
- (4) All procedural questions are subject to the final decision of the presiding officer. If a challenge arises concerning the application of any rule or policy, the hearing will continue and the challenge may be submitted by the chair in writing to the vice-president of student affairs, who will seek legal advice from an assistant attorney general.
- (5) The student has a right to a fair and impartial hearing. However, the student's failure to answer the charges, appear at the hearing or cooperate in the hearing shall not preclude the committee on student conduct from making its findings of facts, conclusions, and recommendations. This shall not limit the possibility of a default pursuant to RCW 34.05.440.
- (6) Hearings shall be closed in accordance with FERPA, 20 U.S.C. Sec. 1232g, unless the student waives this requirement in writing and requests to have the hearing open to the public. However, if education records or information from education records will be disclosed at the hearing, or more than one student is involved, the hearing will remain closed unless all students have consented to open the hearing. In hearings involving more than one accused student, the presiding officer may permit joint or separate hearings. If at any time during the hearing, a visitor disrupts the proceedings, the presiding officer may exclude that person from the hearing.
- (7) The complainant, the student, and their respective advisors may attend those portions of the appeal hearing at which information is received, but may not attend the committee's deliberations. Admission of any other person to the hearing is at the discretion of the presiding officer.
- (8) The student and complainant are entitled to be assisted by an advisor of their choosing, at their own expense. The complainant and student are responsible for presenting their own information, therefore, an advisor is not permitted to address the committee or participate directly in the hearing. An advisor may communicate only with the person they are advising. A student should select as an advisor a person whose schedule allows

attendance at the scheduled date and time for the hearing. Delays or continuances will not be allowed due to the scheduling conflicts of an advisor. If the student is the subject of a pending subsequent criminal matter arising out of the same circumstances, the student may be allowed to have an attorney serve as their advisor, at the student's own expense, to behave in the same manner as any other advisor.

- (9) Formal rules of process, procedure, and/or technical rules of evidence such as are applied in criminal or civil cases, will not apply in student conduct proceedings.
- (10)
 - (a) The student is entitled to present evidence in his or her behalf and to cross-examine witnesses testifying on behalf of the college. The student is responsible for informing his or her witnesses of the time and place of the hearing.
 - (b) Direct examination, cross-examination, and rebuttal may be limited to the extent necessary for the full disclosure of all relevant facts and issues.
 - (c) The committee may receive sworn written testimony in lieu of oral testimony at the hearing.
 - (d) If not inconsistent with this subsection, the presiding officer may refer to the Washington Rules of Evidence as guidelines for evidentiary rulings in accordance with RCW 34.05.452.
 - (e) In determining the appropriate sanction that should be recommended, evidence of past misconduct that the presiding officer deems relevant may be considered.
- (11) Members of the committee on student conduct must avoid ex parte (one-sided) communications with any party involved in the hearing regarding any issue other than communications necessary to maintain an orderly procedural flow to the hearing.
- (12) There will be a single verbatim record, such as a tape recording or transcript, of the information gathering portion of the hearing. Deliberations shall not be recorded. The record shall be the property of the college.

WAC 132N-121-112 Decision by the committee on student conduct and notification.

- (1) At the conclusion of the hearing and deliberations, the committee on student conduct shall meet in closed session to consider all evidence presented and decide by majority vote whether the student has violated the code of student conduct, and if so, the committee determines and imposes the appropriate sanctions from WAC 132N-121-070.
- (2) The burden of proof that guides the committee's decision is the preponderance of evidence, whether it is more likely than not that the student violated the code of student conduct.
- (3) The committee's written decision shall include findings of fact and conclusions which inform the parties of the basis for the decision. The decision should also include information about the appeal process.
- (4) The presiding officer notifies the student in writing, in person, by mail or electronic mail of the committee's decision. Notice is sent within ten days after the hearing is concluded. If the college is not in session, this period may be reasonably extended.
- (5) The written decision of the committee shall become the final order, without further action, unless within ten days following receipt of the decision, the student files a written appeal with the college president.

WAC 132N-121-120 Recordkeeping.

- (1) The record in an adjudicative proceeding shall consist of all documents as required by law and as specified in RCW 34.05.476.
- (2) The office of the vice-president of student affairs shall maintain records of student grievance and disciplinary proceedings for at least six years.

- (3) The disciplinary record is confidential.
- (4) Students may request a copy of their own disciplinary record at their own reasonable expense by making a written request to the vice-president of student affairs. Personally identifiable student information is redacted to protect another student's privacy.
- (5) Students may authorize release of their own disciplinary record to a third party in compliance with FERPA, 20 U.S.C. Sec. 1232g, by making a written request to the vice-president of student affairs.
- (6) The college may inform the complainant of the outcome of any disciplinary proceeding involving a crime of violence or nonforcible sex offense, as permitted by FERPA, 20 U.S.C. Sec. 1232g; 34 C.F.R. Part 99.
- (7) The college may not communicate a student's disciplinary record to any person or agency outside the college without the prior written consent of the student, except as required or permitted by law. Exceptions include, but are not limited to:
 - (a) The student's parents or legal guardians may review these records if the student is a minor or a dependent, if the student is a minor and disciplinary action involves the use or possession of alcohol or controlled substance, or in connection with a health or safety emergency regardless if the student is a dependent or a minor, as permitted by FERPA, 20 U.S.C. Sec. 1232g; 34 C.F.R. Part 99.
 - (b) To another educational institution, upon request, where the student seeks to, intends to, or has enrolled.
 - (c) Information concerning registered sex offenders.

WAC 132N-121-150 Summary suspension proceedings.

- (1) Summary suspension is a temporary exclusion from specified college premises or denial of access to all activities or privileges for which the student might otherwise be eligible, during which an investigation and/or formal disciplinary procedures are pending.
- (2) The student conduct officer or designee may impose a summary suspension:
 - (a) In situations involving an immediate danger to the health, safety, or welfare of any part of the college community or the public at large;
 - (b) To ensure the student's own physical safety and well-being; or
 - (c) If the student poses an ongoing threat of disruption to, or interference with, the operations of the college and the student's conduct prevents other students, employees, or members of the college community from completing their duties as employees or students.
- (3) The student conduct officer or designee shall give the student oral or written notice of the reasons for the summary suspension, and of any possible additional disciplinary or corrective actions that may be taken. If oral notice is given, a written notification shall be personally served on the student, or sent to the student's last known address of record by regular or certified mail within two working days.
- (4) The notification shall be entitled "notice of summary suspension proceedings" and shall include:
 - (a) The charges against the student including reference to the provisions of the student conduct code or the law allegedly violated;
 - (b) The date, time, and location that the student must appear before the student conduct officer for a hearing on the summary suspension; and
 - (c) A notice against trespass that warns the student that his or her privilege to enter into or remain on college premises has been withdrawn, that the student shall be considered trespassing and subject to arrest for criminal trespass, if the student enters the college campus other than to meet with the student conduct officer or designee, or to attend the hearing.

- (5) The hearing on the summary suspension shall be held as soon as practicable after the summary suspension. The hearing may be combined with an initial disciplinary proceeding in accordance with WAC 132N-121-080.
- (6) The summary suspension does not replace the regular process, which shall proceed on the schedule described in this chapter, up to and through a hearing before the committee on student conduct, if required.
- (7) The student conduct officer or designee shall determine whether there is probable cause to believe that summary suspension is necessary and/or whether some other disciplinary action is appropriate.
- (8) The student shall have the opportunity to explain why summary suspension is not necessary either through oral testimony or written statement. If the notice to appear for a summary suspension hearing has been personally delivered to the student or sent to the student's last known address of record by regular mail, certified mail and the student fails to appear at the time designated, the student conduct officer or designee may enforce the suspension, and shall send written notice of summary suspension to the student at the last known address of record on file.
- (9) The student conduct officer or designee may continue the summary suspension and may impose any other disciplinary action that is appropriate, if he or she finds that there is probable cause to believe that:
 - (a) The student has committed one or more violations of the student conduct code;
 - (b) Such violation(s) constitute grounds for disciplinary action; and
 - (c) Summary suspension is necessary.
- (10) Notice of suspension.
 - (a) If summary suspension is upheld and/or if the student is otherwise disciplined, the student will be provided with a written copy of the student conduct officer or designee's findings of fact and conclusions that support the decision that summary suspension of the student should continue.
 - (b) The student suspended pursuant to the authority of this rule shall receive a copy of the "notice of suspension" either personally or sent to the student's last known address of record by regular mail, certified mail, within three days following the conclusion of the hearing with the student conduct officer or designee.
 - (c) The "notice of suspension" shall inform the student of the duration of the summary suspension or nature of the disciplinary action(s), conditions under which the summary suspension may be terminated or modified, and procedures by which the validity of the summary suspension can be appealed.
- (11) The student conduct officer or designee shall provide copies of the notice of suspension to all persons or offices that may be bound by it.

WAC 132N-121-151 Appeals from summary suspension hearing.

Any student aggrieved by an order issued at the summary suspension proceeding may appeal by filing a written request with the chair of the committee on student conduct within ten days from the date on which the student was notified of the decision. However, no such appeal shall be entertained, unless:

- (1) The student has first appeared through oral testimony or by a written statement at the student hearing in accordance with WAC 132N-121-150; and
- (2) The appeal conforms to the standards set forth in WAC 132N-121-090.

WAC 132N-121-500 Classroom misconduct and authority to suspend for no more than one day.

- (1) Faculty members have the authority to take appropriate action to maintain order and proper conduct in the classroom and to maintain the effective cooperation of students in fulfilling the objectives of the course.
- (2) Bringing any person, thing, or object to a teaching and learning environment that may disrupt the environment or cause a safety or health hazard, without the express approval of the faculty member is expressly prohibited.

- (3) Faculty members or college administrators have the right to suspend any student from any single class or related activity for no more than one instructional day, if the student's misconduct creates disruption to the point that it is difficult or impossible to maintain the decorum of the class, related activity or the learning and teaching environment. The faculty member or college administrator shall report this suspension to the vice-president of student affairs or designee who, in consultation with the faculty member, may set conditions for the student upon return to the class or activity.

Discrimination and Harassment Grievance Procedure

Clark College affirms a commitment to freedom from discrimination for all members of the college community. The college expressly prohibits discrimination against any person on the basis of:

Race;
National origin;
Sex;
Age;
Creed;
Presence of physical, sensory or mental disability;
Religion;
Color;
Disabled veteran status;
Sexual orientation;
Gender identity;
Gender expression;
Honorably discharged veteran and military status; or
Marital status.

The responsibility for, and the protection of, this commitment extends to students, faculty, administration, staff, contractors, and those who develop or participate in college programs. It encompasses every aspect of employment and every student and community activity.

Persons who believe they have been discriminated against or harassed by Clark College or its employee(s) or agent(s) on the basis of any status listed above may request informal assistance and/or lodge a formal grievance.

The college president delegates investigation of grievances on the basis of race, sex, creed, religion, color, national origin, age, sexual orientation, gender identity, gender expression and/or marital status to:

Associate Vice President for Human Resources
Baird Administration Building
360-992-2325

The college president delegates investigation of grievances on the basis of any physical, sensory or mental disability, or status as a disabled or Vietnam-era veteran to:

ADA Compliance Officer (ADACO)

Gaiser Hall

360-992-2580

VP: 360-991-0901

Definitions

Sexual harassment: A form of sex discrimination which involves the inappropriate introduction into the work or learning situation of sexual activities or comments that demean or otherwise diminish one's self-worth on the basis of sex. Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment under any of the following conditions:

1. When submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic standing.
2. When submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting such individual.
3. When such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, offensive working or educational environment.

Sexual harassment often involves relationships of unequal power and contains elements of coercion—as when compliance with requests for sexual favors becomes a criterion for granting work, study, or grading benefits. However, sexual harassment may also involve relationships among equals, e.g., student to student, as when repeated sexual advances or demeaning verbal behavior have a harmful effect on a person's ability to study or work.

Sex discrimination: The process of making a distinction in favor of, or against, a person or persons on the basis of sex rather than on individual merit. If sex is taken into account when making a decision regarding an employee, except when it is a bona fide occupational qualification or is otherwise authorized by law, or if a person is sexually harassed, that person has been subjected to sex discrimination.

Racial harassment: Physical or verbal conduct that is maliciously intended to harass, intimidate, or humiliate a person or persons on account of race, color, or national origin and that causes severe emotional distress, physical injury or damage or destruction to the property of another, or threatens and places a specific person or group of persons in reasonable fear of harm.

Disabilities: People with disabilities are persons with a physical, mental, or sensory impairment which substantially limits one or more major life activities. An individual is disabled if that individual meets at least any one of the following tests: (i) the individual is substantially impaired with respect to a major life activity; or (ii) the individual has a record of such an impairment, or (iii) the individual is regarded as having such an impairment.

Disabled veteran: A person entitled to disability compensation under laws administered by the U.S. Department of Veterans Affairs, or a person whose discharge or release from active duty was for a disability incurred or aggravated in the line of duty.

Vietnam-era Veteran: A person who served on active duty for a period of more than 180 days, any part of which occurred between August 5, 1964, and May 7, 1975, and was discharged or released from duty with other than a dishonorable discharge.

No Retaliation

No one shall be singled out, penalized, or retaliated against in any way by a member of the college community for initiating or participating in a grievance procedure. Retaliation may be grounds for disciplinary action.

Grievance Procedure

Complaints should be filed within 180 days from the most recent incident. Where extraordinary circumstances are shown, the 180-day limit may be waived.

Step 1: Informal Meeting

In an attempt to informally resolve the concern, the complainant may request a meeting with the individual believed to have committed the discriminatory act (the respondent) or with the appropriate supervisor or president's designee. The time period in which attempts to informally resolve the concern are made shall not exceed thirty (30) working days from the time the complaint is lodged.

Step 2: Formal Grievance Procedure

The complainant may initiate a formal grievance. A formal grievance must be filed in writing and must set forth the specific grievance(s) raised by the complainant, including the dates, times, places, and circumstances surrounding the complaint. A form for this purpose is available; however, any written document is acceptable. Formal complaints may not be filed by e-mail.

Upon receipt of the grievance, an investigation will be conducted which includes, but is not limited to, interview(s) with the complainant, the respondent, and any additional persons necessary to determine the merit(s) of the complaint. The investigation should be completed within thirty (30) working days.

Upon completion of the investigation, a written report will be prepared, which includes findings and conclusions to the complainant and the respondent. The report may include a recommendation for appropriate disciplinary or corrective action, or the report may be sent to the designated vice president or administrator to determine appropriate disciplinary or corrective action. If the complaint is found to be false and malicious, notification will be given to the designated vice president or administrator for possible disciplinary action against the complainant.

Step 3: Presidential Appeal

If the complaint is not resolved at step 2, the complainant may appeal to the college president. The appeal must be made in writing within twenty-one (21) days after the report is issued.

Within twenty (20) days after receiving the appeal, the college president or the president's designee will conduct the presidential review and report the results in writing to both the complainant and the respondent. The college president may affirm or modify the report, remand the case for further investigation, or dismiss the appeal. The written results of the presidential review will be considered final.

No further intra-institutional appeal exists.

Inquiries or Appeals

If desired, inquiries or appeals beyond the Clark College level may be directed to:

Equal Employment Opportunity Commission
909 First Avenue, Suite 400
Seattle, WA 98104-1061
206-220-6883 206-220-6882 TTY
www.eeoc.gov

Washington State Human Rights Commission
711 South Capitol Way, Suite 402
PO Box 42490
Olympia, WA 98504-2490
360-753-6770 800-300-7525 TTY
www.hum.wa.gov

U.S. Department of Education Office for Civil Rights
915 Second Avenue, Room 3310
Seattle, WA 98174-1099
206-220-7900 206-226-7907 TTY
www.ed.gov.ocr

Notification of Students' Rights Under the Family Education Rights and Privacy Act

Clark College conforms to the Family Educational Rights and Privacy Act (FERPA), as amended, which affords students certain rights as to their education records.

1. Students have the right to inspect and review their education records within 45 days of the day the college receives a written request for access. Students should submit to the registrar written requests that identify the record(s) they wish to inspect. The registrar will make arrangements for access and notify the student of the time and place where the record(s) may be inspected. If the records requested are not maintained in the Registrar's Office, the student will be advised of the correct official to whom the request should be addressed.
2. Students have the right to request the amendment of the education records that they believe are inaccurate or misleading. Students must write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of the process by which the student may appeal the decision.
3. A student has the right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. With few exceptions (stated below), no one will have access to student records without the written consent of the student. Clark College will not release a student's record to a parent/guardian without the student's written permission. Such a policy is in effect regardless of the student's age or financial dependency upon the parent/guardian.

The college may release student directory information without student consent which includes student name, student address, student e-mail, date of birth, major field of study, quarters of attendance, degrees and awards received, participation in activities and sports, and weight and height of members of athletic teams. With regard to former students, such information also includes addresses for use by the Clark College Foundation.

Exceptions include school officials with a legitimate educational interest in a student's educational record. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor, collection agent, or the National Student Clearinghouse, an agency which acts as a clearinghouse for student loan deferment reporting); a person elected to the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Exceptions also include accrediting agencies; student financial aid agencies; those who require student information in an emergency situation in which someone's health or safety is at

risk; Clark College also discloses educational records without consent to officials of baccalaureate institutions in which a student seeks to, or intends to, enroll.

In compliance with the Higher Education Amendments of 1998, the college is authorized to disclose information to a parent or guardian about any school disciplinary violation involving alcohol or a controlled substance which has been found to have been committed by a student who is under the age of 21.

Pursuant to the Solomon Amendment, Clark College is authorized to disclose the following directory information to the military for recruitment purposes: student's name, address, telephone listing, date of birth, academic major, and degrees received from Clark College.

Students who do not wish to have directory information released by the college must file a student directory restriction request with the Registrar's Office.

4. A student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by Clark College to comply with the requirements of FERPA by writing to:

Family Policy Compliance Office
U.S. Department of Education
600 Independence Ave. S.W.
Washington, DC 20202-4605.

In some instances, records may be withheld by the college. Academic transcripts are routinely withheld if a student has a financial obligation to the college. The Security/Safety Office may request a hold on records if there is concern that such records may compromise a criminal investigation.

Copies of the complete FERPA policy may be obtained at the Registration Office.

Limitation of Liability

The college's total liability for claims arising from a contractual relationship with the student in any way related to classes or programs shall be limited to the tuition and expenses paid by the student to the college for those classes or programs. In no event shall the college be liable for any special, indirect, incidental, or consequential damages, including but not limited to, loss of earnings or profits.

Graduation Rates

Below is the federal graduation rate survey (GRS) information for student cohorts from 2003, 2004, 2005, and 2006 (as reported in Spring 2010). The federal graduation rate survey definitions pertain to a specific cohort of Clark College students: new students attending full time, with degree or certificate intentions, and without prior college experience.

Combined transfer out/completion/graduation rate, 4-year average: 40%

GRS completion or graduation rate, 4-year average: 23%

GRS transfer out rate, 4-year average: 17%

Clark College provides this information pursuant to the federal Student Right to Know Act so that prospective students can make informed decisions about the college they might wish to attend. For help in interpreting these data, contact the Office of Planning & Effectiveness, 360-992-2506.

National Center for Education Statistics website: nces.ed.gov/collegenavigator

Equity in Athletics

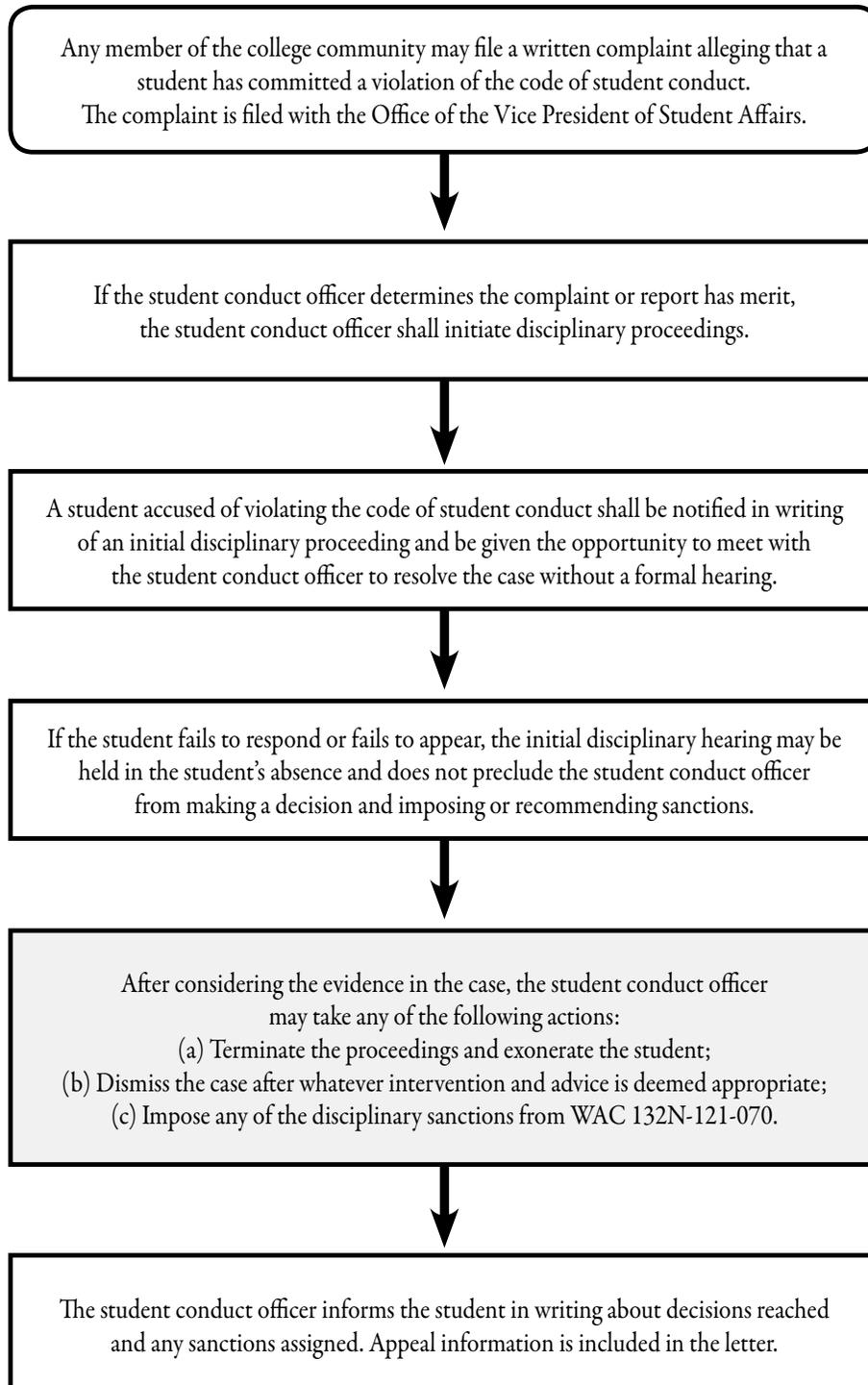
Clark College reports annually to the federal Department of Education concerning the number of male and female student athletes, support for men's and women's intercollegiate sports, financial aid available for male and female athletes, and other information. For a copy of the report, please contact the Athletic Department, O'Connell Sports Center, 360-992-2691.

Student Right to Know Information

All Consumer Information, also known as Student Right to Know Information, is available on the Clark College website at www.clark.edu/student_services/consumer_information/

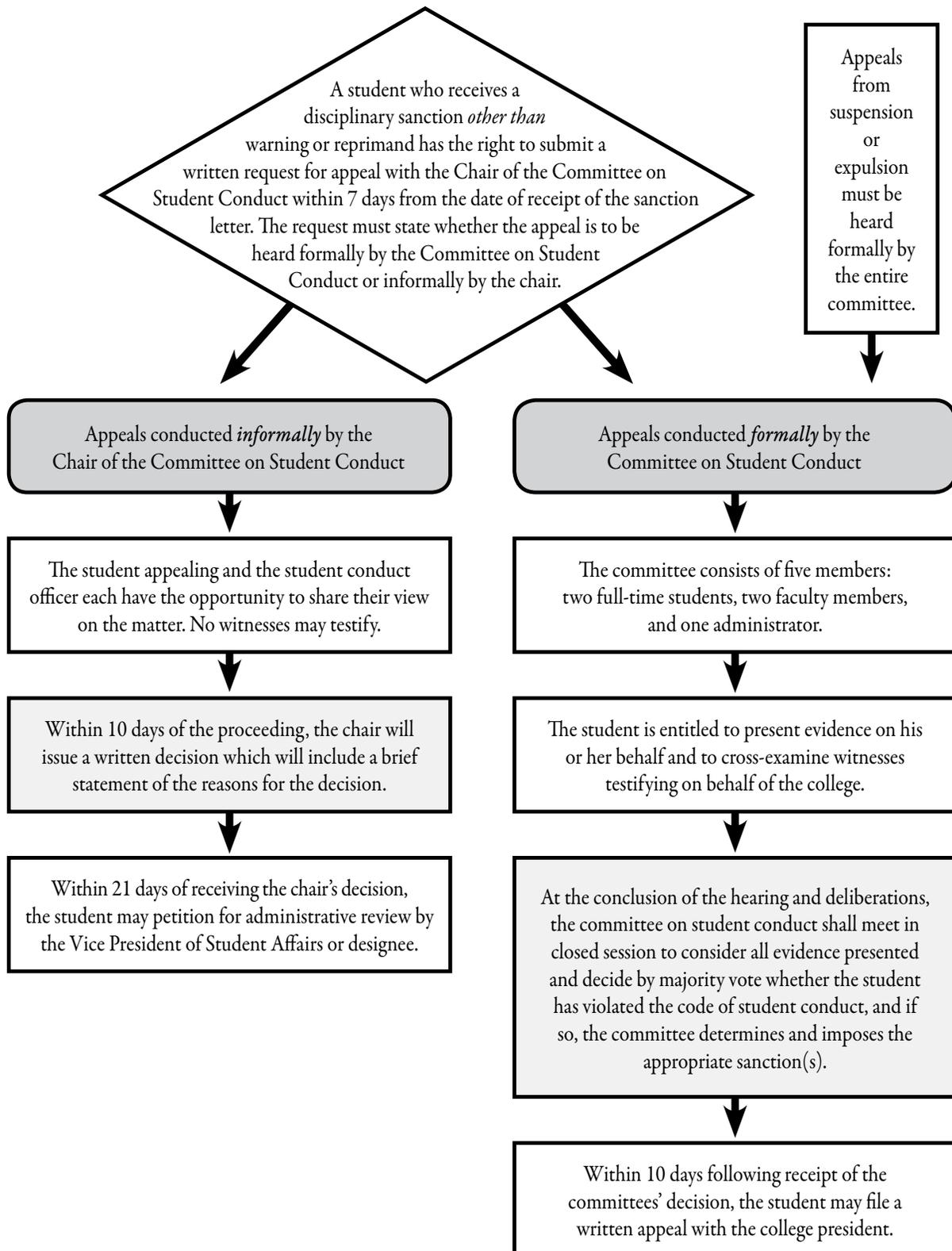
Initial Student Conduct Proceedings

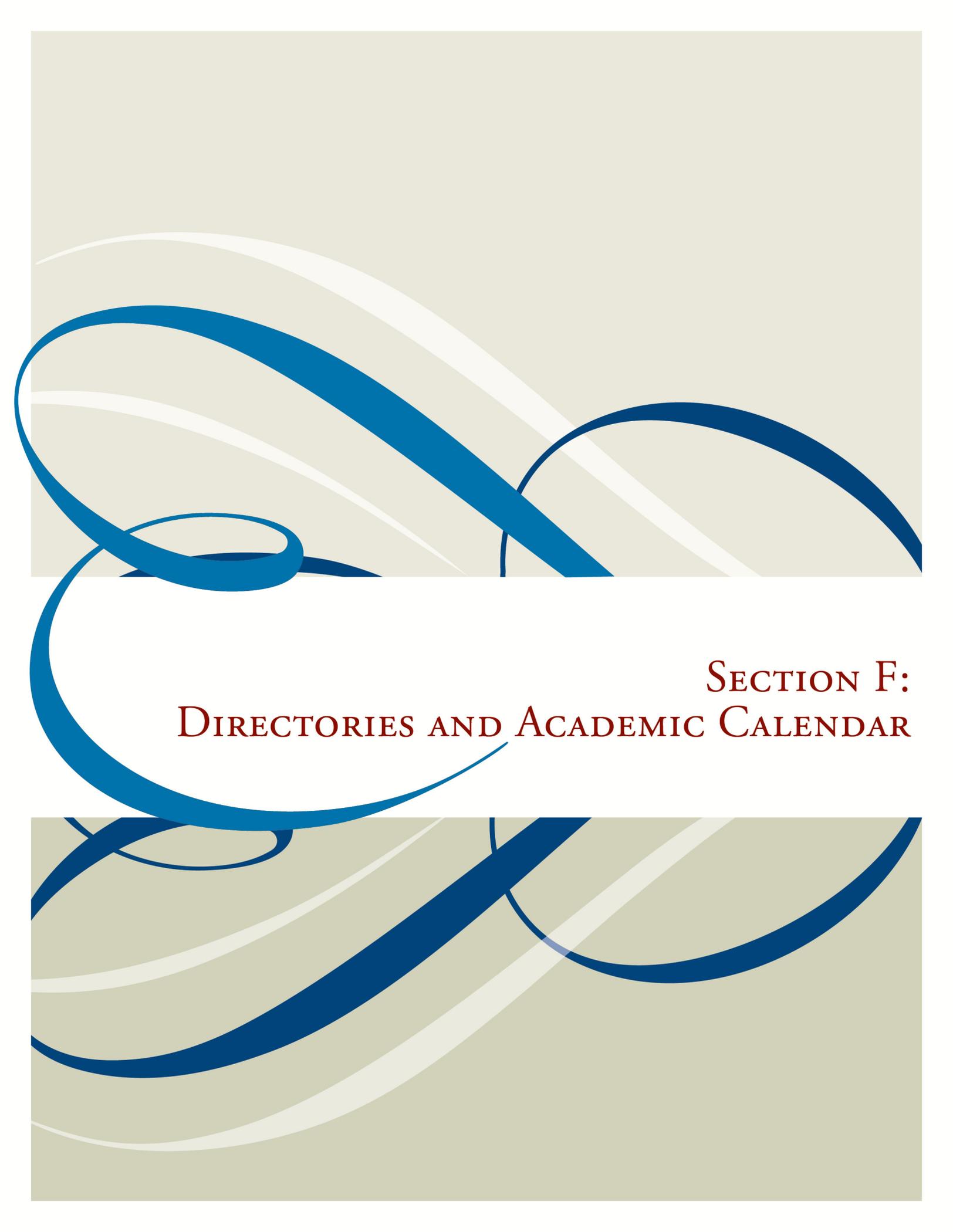
Code of Student Conduct WAC 132N-121-080



Student Appeal Process

Code of Student Conduct WAC 132N-121-090





SECTION F:
DIRECTORIES AND ACADEMIC CALENDAR

SECTION F: Directories and Academic Calendar

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Clark College Board of Trustees

Jack Burkman 2008 – 2013

B.S. in Mechanical Engineering, Montana State University
Certified Professional Coach, Antioch University – Seattle

Mr. Burkman is a Vancouver City Council member. He most recently served as the SW Region Planning Manager for Washington State Department of Transportation. Prior to that, he worked for Hewlett Packard for nearly 28 years, including 21 years in Vancouver.

Community activities include:

- Member and former chair, SW Washington Regional Transportation Council
- Former vice president of Public Policy and member, YWCA Clark County Board of Directors
- Former chair and member, Fort Vancouver Regional Library Board of Trustees

Rhona Sen Hoss 2002 – 2012

B.A. Oklahoma State University

Ms. Sen Hoss is the assistant director of development at WSU Vancouver, focusing on major gifts for engineering and computer sciences. She is active in the community serving on a multitude of non-profit and civic boards.

- Greater Vancouver Chamber of Commerce
- PeaceHealth Southwest Foundation capital campaign
- Clark College Foundation

Royce Pollard 2011 – 2016

B.S. in Secondary Education, University of Alabama

During his six terms as mayor of Vancouver, Wash., from 1996-2010, Royce Pollard shaped the development of downtown Vancouver including the revitalization of Esther Short Park and the dedication of the Hilton Vancouver Washington Hotel and Convention Center.

Community activities include:

- Board of Directors, Southwest Washington Red Cross

Jada Rupley 2010 – 2015

B.A. in Psychology/Education, Central Washington University
M.Ed. in School Administration, Seattle Pacific University
Certified Superintendent, School Principal, School Psychologist

Jada Rupley is currently the Associate Superintendent of Educational Service District 112. She leads the Teaching and Learning department, serving the ESD's six regions and thirty school districts.

Community activities include:

- Clark County Skills Center Advisory
- Former Co-chair of the Washington Early Learning Advisory Council

Sherry W. Parker 2003 – 2013

A.A.S. Clark College

B.A. University of South Florida

Currently retired, Ms. Parker served as County Clerk of Clark County, Washington, from 2007-2010. She worked for Clark County for over 19 years. She previously worked as secretary of the Data Processing Department at Clark College, where she also taught computer skills classes.

Community activities include:

- Treasurer and Past President, Salmon Creek Lions Club
- Secretary, Clark County Volunteer Lawyers Program
- Member, City of Vancouver Transportation Finance Task Force

Clark College Executive Cabinet

William Belden (2010)

Vice President of Student Affairs
B.A. Eastern Washington University
M.Ed. Western Washington University

Sirius Bonner (2011)

Special Advisor on Diversity and Equity
B.A. Reed College
M.A. Reed College

Tim S. Cook (1997)

Vice President of Instruction
B.S. Western Oregon State College
M.A. Lewis and Clark College
Ph.D. Oregon State University

Shanda L. Diehl (2008)

Associate Vice President of Planning
and Effectiveness
B.A. Eastern Washington University
M.P.H. University of Washington

Lisa Gibert, CFRE

President/CEO, Clark College Foundation
B.S. University of Oregon
M.B.A. University of California, Irvine

Leigh A. Kent (2007)

Executive Assistant to the President
A.A., A.S. Holyoke Community College

Barbara Kerr (2004)

Executive Director of Communications
and Marketing
B.S. Ithaca College

Robert K. Knight (2004)

President
B.S. United States Military Academy
E.M.B.A. Golden Gate University

Kevin Kussman (2011)

Associate Vice President of Corporate
and Continuing Education
B.S. University of Washington
M.B.A. University of Michigan

Darcy L. Rourk (2010)

Associate Vice President of Human Resources
B.S., M.S., Ph.D. Kansas State University

Robert D. Williamson (2009)

Vice President of Administrative Services
A.A. Ft. Steilacoom Community College
B.A., M.A. Western Washington University

Clark College Administration

Sheryl A. Anderson (2002)

Director of Admissions & Assessment
A.A. Southwestern Oregon Community College
B.S. Southern Oregon University
M.Ed. Colorado State University

Michelle M. Bagley (2008)

Dean of Library, eLearning, Tutoring
and Faculty Development
B.A. Minot State University
M.L.S. Emporia State University

Andrew T. Barsotti (2008)

IT Application & Database Developer
B.S. University of Wisconsin
M.S. Washington State University, Pullman

Randall G. Blakely (2009)

Columbia Tech Center Building Administrator
B.A., M.P.A. Portland State University
Ed.D. Oregon State University

Edie N. Blakley (2008)

Director of Career Services
A.A.S. Linn Benton Community College
B.S., Ed.M. Oregon State University

Blake R. Bowers (2008)

Dean of Health Sciences
B.S., M.S. Southern Oregon University
Ph.D. Oregon State University

Ted J. Broussard (2004)
Dean of Student Success & Retention
B.A. University of SW Louisiana
M.A. Fairfield University
Certification Administration/Supervision,
Southern CT State University

Linda S. Calvert (1979)
Associate Director of Running Start
B.A. Washington State University

Laurie S. Cornelius (1982)
Director of Services for Children & Families
B.A. University of Washington
M.A. Pacific Oaks

Tara L. Cox (2010)
Marketing & Communications Manager
for Corporate & Continuing Education
B.A. University of Oregon

Dedra K. Daehn (2010)
Director of Academic Services
B.S. Kansas State University
M.S. Fort Hays State University

David B. Daugherty (2000)
Associate Director of Information
Technology Services
A.A. Lane Community College
B.S., M.S. University of Oregon

Rhianna Derscheid (2010)
Credentials Evaluator Manager
B.A. Washington State University
M.S. Portland State University

Diane Drebin (2012)
Dean of Enrollment Services and Completion
A.A., A.S. Clackamas Community College
B.A. Marylhurst College
M.S. Portland State University

Karen L. Driscoll (2008)
Director of Financial Aid
B.S. Eastern Washington University

Cynthia L. Foreman (2009)
Associate Director of eLearning
B.A. Oregon State University
M.S. University of Massachusetts

Mark R. Gaither (2010)
e-Learning Instructional Designer
B.S. Portland State University

Michelle L. Golder (2007)
College Community Events Manager
B.S. University of Portland

James C. Green (2003)
Director of Plant Services
B.S.M.E. Oregon State University
M.S.M.E. Washington State University Vancouver

Jennifer R. Grove (2006)
Administrative Services Operations Manager
B.A. San Jose State University
M.S. Portland State University

Sarah K. Gruhler (2010)
Director of Student Life &
Multicultural Student Affairs
B.A. Western Washington University
M.Ed. Seattle University

Charles Guthrie (2011)
Director of Athletics
M.S. University of Albany

Theresa L. Heaton (1977)
Executive Assistant to the
Vice President of Administrative Services

Aaron Hodukavich (2012)
Disability Support Services Manager
B.S. Longwood University
J.D. Howard University

Genevieve Howard (2010)
Dean of Workforce, Career, and Technical Education
B.A. California State University, Bakersfield
M.A. California State University, Bakersfield

Miles V. Jackson (1998)
Dean of Social Sciences and Fine Arts
B.S. Portland State University
M.S. University of Washington

Tami L. Jacobs (1997)
Director of Access Services
A.A.S. Portland Community College
B.A. Eastern Washington University

Vernon “Skip” A. Jimerson (1991)
Grounds Manager

Tanya Kerr (2011)
Internal Auditor
B.A. University of Washington

Jennifer Knapp (2011)
Associate Director of Workfirst, Career
and Technical Education
B.A. Warner Pacific College

Monica L. Knowles (1998)
Bookstore Manager
A.A. Brooks College

Raymond T. Korpi (2000)
Dean of Basic Education, English,
Communications and Humanities
B.S., M.A. University of Nebraska, Lincoln
Ph.D. Washington State University

Tonya R. Lawrence (2006)
Pathways Program Manager
B.A. California State University, Chico
M.Ed. Southwest Texas State University

Andrew J. Long (2009)
Director of Advising
B.A. University of Essex
M.A. California State University, Los Angeles

John Maduta (2010)
Advising Divisional Manager
B.A. Western Washington University
M.S. Warner Pacific College

Kimberly A. Marshel (2008)
Registrar
B.S., W.S.C.T., M.S. Portland State University

Rebecca J. Merritt (1997)
Student Eligibility Programs Manager
B.A. University of Arizona
M.N.M. Regis University

A. Barbara Miller (2007)
Executive Assistant to the
Vice President of Instruction

Kathy A. Murphy (2008)
Executive Assistant to the Executive
Director of Communications & Marketing

Cynthia L. Myers (2007)
Director of Nursing
A.D.N. Clark College
B.S.N. Washington State University, Vancouver

Janet F. Novak (2009)
Corporate Education Program Manager
B.S. DeVry University

Cindi M. Olson (1999)
Executive Assistant to the
Vice President of Student Development

Debra Ortiz (2011)
Director of Allied Health
M.S. California State University

Shelley R. Ostermiller (2010)
Advising Divisional Manager
A.A. Clark College
B.A. Washington State University, Vancouver
M.S. Warner Pacific College

Eriko Otsuka (2012)
Software Application Integrator and Developer
B.A. Washington State University Vancouver

Ken J. Pacheco (2004)
Director of Security & Safety
B.A. Providence College
M.S. University of New Haven

Felisciana K. Peralta (2008)
Multicultural Retention Manager
B.A. Central Washington University
M.Ed. Heritage University

Paul J. Raines (2009)
Custodial Services Manager

Tracy B. Reilly-Kelly (1998)
Mature Learning Program Manager
B.A. The Evergreen State College
M.S. Portland State University

J. Brian Scott (2005)
Director of Marketing
B.A. University of Oregon
B.S. Portland State University

Philip N. Sheehan (1976)
Director of Information Technology Services
A.A., A.A.S. Clark College
B.A. University of Washington
M.B.A. Marylhurst University

Jody Shulnak (2007)
Interim International Programs Manager
B.S. Northern Arizona University

Melissa Sinclair (2012)
Advising Divisional Manager
B.S. Hawaii Pacific University

Suzanne C. Smith (2010)
Student Learning Center Program Manager
A.S. Utah Valley State College
B.A. Washington State University, Vancouver

Julie F. Taylor (2005)
Administrative Secretary

Patrick D. Taylor (1998)
Network Systems Manager

Jim Watkins (2003)
Construction Project Manager
B.A. New College

Peter Williams (2011)
Dean of Science, Technology, Engineering and Mathematics
B.A. University of Vermont
M.S. Washington State University
Ph.D. Oregon State University

Sue A. Williams (1996)
Associate Director of Human Resources
A.A.S. Clark College
B.A. Washington State University, Vancouver

Tiffany F. Williams (2009)
Workforce Pathways Manager
B.S. East Carolina University

Jason Wiskarson (2011)
Software Application Developer
B.S. University North Texas

Karen J. Wynkoop (2005)
Director of Business Services
B.A. The Evergreen State College
M.A. Gonzaga University

Clark College Faculty

Lisa Aepfelbacher (2011)
Nursing
B.S.N. Boston University
M.S. Case Western Reserve University

Jacqueline F. Allen-Bond (2000)
English as a Second Language
B.A. University of Victoria, Canada
M.A. School for International Training, Brattleboro

Donald L. Appert (1990)
Music
B.M., M.M. New England Conservatory
D.M.A. University of Kansas

Michael D. Arnold (1989)
Exercise Science, Physical Education
A.S. North Country Community College
B.S.E. Northwest Missouri State University
M.S. Northeast Missouri State University
Certified Strength and Conditioning Specialist

Karl L. Bailey (2006)
Chemistry
B.S. California Polytechnic State University
Ph.D. University of California, Davis

Radmila Ballada (2008)
Technical Services and Systems Librarian
B.A. University of Vermont
M.A., M.L.S. Southern Connecticut State University

Kristine T. Barker (1993)
Mathematics
B.A. Willamette University
M.A. University of Oregon

Kayoko Y. Barnhill (1994)
Mathematics
B.A.S. University of California, Davis
M.A. California State University, Sacramento

Christina Colby Barsotti (1992)
Engineering
B.S., M.S. Washington State University

Carol L. Beima (1999)
Adult Basic Education
B.A. Wittenburg University
M.Ed University of Washington

Gene Biby (2011)
Drama
B.S., M.S. Murray State University
Ph.D. Southern Illinois University

Aaron S. Bingham (1994)
Mathematics
B.A. University of California, Los Angeles
M.A. California State University, Sacramento

Deena M. Bisig (2008)
Communications Studies
B.A. Dana College
M.S. South Dakota State University

Kathy A. Bobula (1982)
Early Childhood Education & Psychology
B.S., M.S. Ohio State University
Ph.D. Portland State University

Mark E. Bolke (2000)
Biology
B.S., M.S. Portland State University

Lisa A. Borho (1997)
Physical Education
B.S., M.S. University of Illinois

Veronica P. Brock (1995)
Health & Fitness
B.S. Eastern Washington University
M.S. East Stroudsburg University

Susan K. Brookhart (2006)
Chemistry
B.A. Amherst College
M.S. California Institute of Technology

Laurie H. Brown (2002)
Nursing-Pediatrics
A.S. Golden West College
A.S. Cypress College
B.S.N. California State University, Fullerton
M.P.A. Portland State University
M.S.N. Washington State University

Joan E. Carey (1994)
Librarian
B.S. University of Vermont
M.S.L.S. Simmons College

Rita M. Carey (1991)
English
B.A. Marylhurst College
M.A. University of Oregon
Ph.D. Florida State University

Paul A. Casillas (1990)
Mathematics
B.A. Augustana College, Illinois
M.A. University of Iowa
M.S. University of Oregon

Carlos J. Castro (2006)
Sociology
B.A., M.A., M.C.R.P., Ph.D.
University of Oregon

Michael V. Ceriello (2007)
Political Science
B.A. University of California, Santa Barbara
M.A. Western Washington University

Geneva E. Chao (2006)
English
B.A. Barnard College of Columbia University
M.A., M.F.A. San Francisco State University

Anthony J. Chennault (2008)
Biology
B.A. University of Puget Sound
M.S. Portland State University

Steven Clark (2011)
Biology
B.A. Linfield College
M.A. Lewis and Clark College
M.S. Portland State University

Valerie S. Cline (2011)
Nursing
A.D.N. Clark College
B.S.N. Washington State University, Vancouver
M.S.N. Walden University

Shayna Collins (2012)
Counseling/Human Development
B.A., M.S. Minnesota State University, Mankato

Adam Coleman (2011)
Computer Technology
A.A.S. Clark College
B.S. Eastern Washington University

Lisa E. Conway (2003)
Art
B.F.A. University of Michigan
M.F.A. Louisiana State University

James M. Craven (1992)
Economics & Geography
B.A., M.A. University of Manitoba

Amanda Crochet (2011)
Chemistry
B.S. Tulane University
Ph.D. University of California, Berkeley

William T. Cushwa (1995)
Biology
B.S. Virginia Polytechnic Institute and State University
M.S., Ph.D. University of California, Davis

Jill C. Darley-Vanis (2006)
English
B.A. Oregon State University
M.A. Portland State University

Marylynne Diggs (1998)
English
B.A. University of Alabama
M.A., Ph.D. University of Oregon

Roxanne L. Dimyan (1997)
Librarian
B.A., M.L.S. University of Washington

Elizabeth Donley (2011)
English
B.A. DePaul University
M.A., M.F.A. Chapman University

April B. Duvic (2009)
Music
B.A. Whitman College
M.S.T. Portland State University

Evalinn “Sunnie” Elhart-Johnson (2010)
Business Medical Technology
B.S. Humboldt State University
M.S. Warner Pacific College

Mark L. Elliott (1994)
Mathematics
B.S., M.S. Portland State University

Rebecca L. Ellis (2007)
Nursing
B.S.N. University of Alabama, Birmingham
M.N. Washington State University, Vancouver

Donald E. Erskine (1988)
Technical Writing
B.A. University of Illinois
M.A. University of Michigan

Mary E. Evens (2000)
Business Technology
B.A. Central Washington University
M.A. Pepperdine University

Jennifer Farney (2011)
Mathematics
A.S. Victor Valley College
B.S. University of California, Riverside
M.S. San Diego State University

Nadine L. Fattaleh-Diggs (2002)
Chemistry-General
B.A. Scripps College
M.S. Carnegie Mellon University

Anita L. Fisher (1990)
History & Political Science
B.A., M.A. University of Portland
Ph.D. University of Oregon

John L. Fite, Jr. (2007)
Economics
B.S. United States Air Force Academy
M.A. Georgetown University

Nicholas C. Forrest (1996)
Political Science
B.A. St. Joseph's College
M.A., Ph.D. Northwestern University

Van A. Forsyth (1995)
History
B.A. University of California, Berkeley
M.A. San Francisco State University

Marina B. Frost (1996)
Mathematics
B.S., Ph.D. University of Novosibirsk, Russia

Patricia H. Fulbright (1993)
English
B.A., M.A. California State University, Long Beach

Sara L. Gallow (1999)
English as a Second Language
B.A. Michigan State University
M.A. Ball State University

Randall S. Givens (1988)
Nursing
B.S. Walla Walla College
M.S. University of Portland

Michael A. Godson (1995)
Automotive Technology
A.A.S. Clark College
A.S.E. Master Automotive Technician

Donald M. Gonser (1994)
Diesel
A.S. Oregon Institute of Technology
A.S.E. Master Medium/Heavy Truck Technician

Patrick L. Gonzales (1978)
Welding
A.S. Yuba College
Journey Level Welder

John P. Governale (1993)
Psychology
A.A. Skagit Valley College
B.A. Western Washington University
M.S. Portland State University

Zachary M. Grant (2006)
Librarian
B.A. Oregon State University
M.S. Emporia State University

Garrett C. Gregor (1979)
Mathematics
B.S. University of Utah
M.S. Humboldt State University

Gothard C. Grey (2004)
Physics
B.S. (Physics), B.S. (Chemistry),
B.S. (Mathematics) University of Utah
M.S. California Institute of Technology
Ph.D. University of Wisconsin, Madison

Sandra L. Haigh (2004)
Biology
B.S. Washington State University, Pullman
M.S. Texas A&M University
Ph.D. University of Nevada, Las Vegas

Marilyn Hale (2010)
Business Technology
B.S. University of Montana-Western
M.Ed. Montana State University

Kathrena L. Halsinger (2001)
Art/Graphics
B.A. Western Washington University

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Business Administration
B.A., B.S., Ed.D. Portland State University
M.B.A. California State University

Tonia L. Haney (2010)
Automotive
B.S. Southern Illinois University

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Nursing
B.A., B.S. Winona State University
M.P.H. Loma Linda University

Marilyn J. Howell (2000)
Sociology/Criminal Justice
B.A. Western Washington University
M.A., Ph.D. Washington State University

Dwight W. Hughes (2003)
Network Technology
B.S. Northern Arizona University
M.A. University of Phoenix
Certifications in A+, Network+,
MCP, CCAI, CCNA

Robert L. Hughes (1998)
Network Technology
A.S. Clark College
B.A. The Evergreen State College

Carol C. Hsu (2010)
Engineering
B.S., M.S. The University of Texas, Austin

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Music
B.M.E. University of Northern Colorado
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Debra R. Jenkins (2000)
Early Childhood Education/Psychology
A.A. Clark College
B.A., M.A. Pacific Oaks College
M.S. University of Phoenix

Elizabeth Jochim (2012)
Nursing
B.S. Saint Martin's University
B.S.N. Seattle University
M.S. Grand Canyon University

Gene E. A. Johnson (1976)
Business, Economics
A.A. Everett Community College
B.A. Central Washington University
M.B.A. (Accounting), M.B.A. (Management),
Golden Gate University

Catherine E. Johnston (2007)
English as a Second Language
B.A. DePaul University
M.A. University of San Francisco

Sally J. Keely (1996)
Mathematics
B.S., M.S. Portland State University

Izad Khormae (2003)
Engineering
B.S., M.S. Iowa State University
M.B.A. University of Oregon

Travis T. Kibota (1994)
Biology
B.S. University of California, Los Angeles
M.S., Ph.D. University of Oregon

Jenefe A. King (2009)
Medical Radiography
Radiography Diploma, Christchurch
School of Radiography, New Zealand

Honey H. Knight (2010)
Dental Hygiene
A.A.S. Mt. Hood Community College
B.S. Eastern Washington University

David L. Kosloski (1998)
Speech
B.A. Georgia State University, Atlanta
M.A. Central Michigan University

Katie Laack (2011)
Nursing
B.S. Marquette University

Jennifer Leaver (2011)
Psychology
B.S. University of Washington
M.A. Claremont Graduate University

C. Carson Legree (1994)
Art/Art History
B.A. University of California, Davis
M.F.A. Washington State University

Lewis M. Lewin (1991)
Psychology
B.A. Allegheny College
M.S., Ph.D. Ohio University

Christopher R. Lewis (1999)
Electronics
A.A.S., B.A.S. ITT Technical Institute

Dennis J. Lloyd (2000)
Diesel
A.A.S. Clark College

Luanne M. Lundberg (1997)
Developmental Education/Reading
B.A., M.Ed. Western Washington University

Anita L. Lundy (2002)
Adult Basic Education
B.A. Portland State University
M.A.T. Lewis and Clark College

Robert M. MacKay (1983)
Physics
B.A. Chico State University
M.S. Portland State University
Ph.D. Oregon Graduate Institute of Science
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Carole L. Mackewich (1992)
Counselor
B.A. Bloomsberg State University
M.Ed. University of Washington

Kitty J. Mackey (2001)
Librarian
B.A. University of Montana
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Culinary Arts
Associate in Occupational Studies
Diploma Culinaire, Culinary Institute of America

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Family Life/Early Childhood Education
B.S. Western Oregon State College
M.S. Portland State University

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Nursing
B.S.N. Washington State University

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B.S. Eastern Washington University
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Doctorandus Leiden University
M.B.A. Georgia State University

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Biology
B.A. Vassar College
M.A. Antioch University

Priscila E. Martins-Read (1990)
English as a Non-Native Language
B.A. University of Washington
M.Ed. Oregon State University

Kanchan Mathur (2005)
Mathematics
B.A. Delhi University
M.S., Ph.D. Indian Institute of Technology

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A.S. Madonna University
B.S. Central Michigan University
M.S.W. Portland State University

Christopher E. Milner (2007)
Mathematics
B.S. University of Puget Sound
M.S. Oregon State University

John J. Mitchell (2004)
Mathematics
B.Sc., M.Sc. University College Dublin

April E. Mixon (2005)
Chemistry
B.S. Shippensburg University
M.S. Oregon State University

William H. Monroe (2000)
Mathematics
B.S. University of Santa Clara
B.S. California State University, Chico
M.S. Portland State University

Charlene Montierth (2003)
Geology
A.A., A.S. Long Beach City College
B.S. University of California, Los Angeles
Ph.D. University of Oregon

Meredith A. Moore (2009)
Nursing
A.D.N. Carl Sandburg College
B.S.N., M.N. Oregon Health Sciences University

Douglas E. Mrazek (1978)
French
B.A. Hope College
M.A. University of Illinois
Diplome Superieur d'Etudes Francaises,
University of Grenoble

Erika L. Nava (2008)
Spanish
B.A. Oregon State University
M.A. University of Oregon

Tracy J. Nehnevaj (1992)
Mathematics
B.A., M.S. Eastern Washington University

D. Julian Nelson (2005)
German
B.A., M.A. San Francisco State University
Ph.D. University of California, Davis

Susan L. Nieman (2009)
Nursing
A.D.N. Clark College
B.A. Eastern Washington University
B.S.N., M.S.N. Washington State University, Vancouver

Nancy E. Novak (2002)
English as a Second Language
B.A. Dartmouth College
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TESL Seattle University School of TESL

Michiyo Okuhara (2010)
Japanese
A.A. Seisen Women's Junior College
A.A. Clackamas Community College
B.S., M.E. Portland State University

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Biology
B.A. University of Delaware
M.S. University of New Haven

Ambra Peters (2011)
Data Networking
A.S. Green River Community College
B.A. Washington State University
M.A. Gonzaga University

Gary K. Phillips (1988)
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A.A. Lower Columbia College
B.A. Central Washington State University
M.S. Portland State University

Joseph R. Pitkin (2000)
English
B.A. Utah State University
M.A. New Mexico State University

Kristl J. Honda Plinz (1999)
Computer Graphics Technology
B.S. California Polytechnic State University
M.S. Rochester Institute of Technology

Richard N. Rausch (2003)
Biology
B.S, Ph.D. Portland State University

Ethel Reeves (2011)
Nursing
A.S. Portland Community College
A.S.N. Clark College
B.S.N. Washington State University

Heidi M. Rich (1997)
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B.A. Lewis and Clark College
M.A. University of Iowa
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English as a Second Language
B.A. University of Portland
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Chemical Dependency
B.S., M.S. Oklahoma State University
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Gail R. Robinson (1993)
English
B.A. Miami University, Ohio
M.A. Portland State University

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Health Occupations
A.S. Scott Community College
B.S. Augustana College

Bevyn Rowland (2011)
Counseling/Human Development
B. A. University of Portland
M.A., Ph.D. Pacific University

S. Layne Russell (2006)
Paralegal
B.A. University of Memphis
J.D. College of William and Mary, Marshall Wythe
School of Law

Katherine D. Sadler (2005)
History
B.A. Portland State University
M.A., Ph.D. University of California, Los Angeles

Mitzi Schrag (1997)
English
A.A. Clark College
B.A. Reed College
M.A., Ph.D. University of Washington

Robert Schubert (2011)
Anthropology
B.A. University of Illinois
M.A., Ph.D. Ohio State University

Patricia A. Serrano (1981)
Business
B.A. Portland State University
M.B.A. University of Portland

Patricio Sevier (2010)
Machining

Richard T. Shamrell (1999)
Physics
B.S. US Air Force Academy, Colorado
M.A. Webster College
M.S. Southern Illinois University

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Physics
B.S., M.S. Universitatea Alexandru Ioan Cuza

Dawn M.U. Shults (2009)
Pharmacy
CPhT Clark College

Gerard M. Smith (1991)
English
B.S. Bowling Green State University
M.A. University of Toledo
Ph.D. Bowling Green State University

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Computer Technology
B.A. San Francisco State University
M.S. San Jose State University

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Welding
A.S. Clark College

Suzanne Southerland (2011)
Communication Studies
B.S. University of Portland
M.S. Portland State University

Keith R. Stansbury (1999)
Computer Aided Design & Drafting
B.S. Iowa State University

Erin Staples (2011)
Health & Physical Education
B.S. University of North Texas
M.S. Portland State University

Sensene L. Stokes (2007)
Art/Photography
B.F.A. Rhode Island School of Design
M.F.A. University of New Mexico

Kimberly A. Sullivan (1992)
English & Technical Writing
B.A. Belhaven College
M.A. Mississippi State University

Roxane Y. Sutherland (1987)
Communication Studies
A.A. Clark College
B.A. The Evergreen State College
M.S. Portland State University

Karla J. Sylwester (1988)
Dental Hygiene
R.D.H. University of Oregon
B.S. Portland State University

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Dental Hygiene
A.A.S. Clark College
B.S. Eastern Washington University

Sarah J. Theberge (2000)
Early Childhood Education/Family Studies
A.A.S. Clark College
B.A., M.A. Pacific Oaks College

Nancy J. Thompson (2007)
English
B.A. Portland State University
M.A. University at Albany
M.F.A. Goddard College

Ian L. Titterton (2005)
Baking
Rush Green College
Baking Technology & Flour Confectionery
Sanitation & Hygiene

Sally A. Tomlinson (2007)
Art History
B.A. University of California, Berkeley
M.A. University of Victoria, Canada

Elizabeth R. Torgerson (2010)
Nursing
A.A. Clackamas Community College
B.S.N. OHSU School of Nursing
M.S.N. Washington State University, Vancouver

Ruth Trejo (2011)
Chemistry
B.S., M.S. University of California, San Diego

Elizabeth C. Ubierno (2008)
Spanish
B.A., M.A. University of Oregon

Dian R. Ulner (2001)
Women's Studies
B.A. Northern Illinois University
M.S. Minnesota State University

Linda Valenzuela (2009)
Nursing
A.S. College of Sequoias
B.S.N. California State University
M.P.H. Portland State University

Judith A. Van Patten (1973)
Counseling
B.A. University of Washington
M.S. Oregon College of Education
National Certified Counselor (NCC)
Certified Mental Health Counselor Washington
Licensed Professional Counselor - Oregon

Stephen J. Walsh (2000)
Business Administration
B.A., M.B.A. University of Portland
Psy.D. Pacific University

Brenda K. Walstead (2006)
Dental Hygiene
A.A. Clark College
B.S. Concordia University
M.S. Portland State University

Kathryn S. Washburne (2008)
Adult Basic Education
B.A. California Polytechnic State University
M.A. United States International University

Dennis W. Watson (1983)
Mathematics
B.S., M.S. Portland State University

Bruce F. Wells (2000)
Machine Technology
A.G.S. Clackamas Community College

Alan Wiest (2012)
Health & Physical Education
A.S. Lane Community College
B.S., M.S. University of Oregon

Christine J. Wilkins (2002)
Business Technology
B.A. Oregon State University
M.S. Troy State University

Jim Wilkins-Luton (2003)
Developmental Education
B.A. Whitworth College
M.A. Gonzaga University

Sandra E. Woodward (1988)
English
B.A. Park College
M.A. University of Kansas

Randall A. Wulff (1976)
English as a Second Language
B.A., M.A. Portland State University
Certificate in T.E.S.O.L.

Joan Zoellner (2009)
Mathematics
B.A. Humboldt State University
M.A. Indiana University

Clark College Foundation

Lisa Gibert, CPA, CFRE (1998)
Clark College Foundation President/CEO
B.S. University of Oregon
M.B.A. University of California, Irvine

Barbara Chen, CFP, CTFA (2000)
Clark College Foundation Chief Financial Officer
B.S. University of Oregon

Ara Serjoie, CFRE (2006)
Clark College Foundation Vice President
of Development
B.A. Utah State University
M.P.A. University of Utah

Phone Directory

Admissions/Welcome Center.....PUB699-NEXT	eLearning.....LIB992-2654
Admissions.....992-2107	www.clark.edu/eLearning..... 1-877-748-2654
Student Ambassadors/Campus Visits.....992-2078	
Adult Basic Education/ESLTPC.....992-2741	Eligibility Programs
AdvisingGHL992-2345	High School Completion.....GHL.....992-2274
Affirmative Action/ Equal Opportunity.....BRD.....992-2355	Worker Retraining.....GHL.....992-2274
Archer GalleryPUB992-2246	WorkFirst Programs.....GHL.....992-2321
Assessment Center	WorkFirst Tuition.....GHL.....992-2915
GED Testing..... PUB.....992-2588	Facilities Use.....BRD.....992-2713
Placement Testing.....PUB.....992-2588	Financial Aid.....GHL992-2153
Athletics.....OSC.....992-2691	Sponsored Programs.....GHL.....992-2307
Bookstore.....GHL992-2149	Veterans Affairs.....GHL.....992-2112
.....www.clarkbookstore.com	Work Study.....GHL.....992-2969
Career ServicesGHL992-2902	Fitness Center (Thompson).....OSC.....992-2808
Career Center.....GHL.....992-2155	Food Service.....GHL992-2304
Cooperative Education.....GHL.....992-2391	Information.....GHL992-2000
Employment Services.....GHL.....992-2154	International Programs.....PUB992-2495
.....GHL.....992-2391	Library (Cannell).....LIB992-2151
Internships.....GHL.....992-2964library.clark.edu
Service Learning/Volunteerism.....GHL.....992-2447	Lost and FoundGHL992-2429
Work Study Referrals.....GHL.....992-2902	Registration.....GHL992-2183
CashierGHL 125 ..992-2177	Running StartGHL992-2366
Child Care	SecurityGHL992-2133
12 mos.-3 yrs.....CFS992-2179Officers on duty 24 hours
3-5 yrs.....CFS992-2393	Student Life
5-10 yrs.....CFS.....992-2179	General Office.....PUB.....992-2441
Corporate & Continuing Ed.....TBG.....992-2939	Student Activities.....PUB.....992-2353 x3132
Mature Learning.....TBG 232.....992-2213	Student Government.....PUB.....992-2353 x3353
Community Education.....TBG 232.....992-2939	Student Clubs.....PUB.....992-2353 x3169
Professional Development.....TBG 232.....992-2939	Tech PrepBHL992-2458
Corporate Education.....TBG 232.... 1-877-473-1600	Tutoring/Writing Center HKH.....992-2253
Counseling & Health Center.....HSC..... 992-2614AA4.....992-2461
Credential Evaluations.....GHL992-2805	Washington State University
Dental HygieneHSC.....992-2158	Vancouver Advising.....GHL.....546-9779
Disability Support Services.....GHL992-2314	WorkFirst/Workforce Training
.....VP 991-0901	Job Skills Training.....TPC992-2758
Discrimination/HarassmentBRD.....992-2355	Pathways Learning Center.....TPC992-2747
Diversity & EqualityPUB992-2355	Student Learning CenterTPC992-2750
	WorkFirst Work StudyGHL.....992-2915

Clark College 2012-2013 Academic Calendar

SUMMER QUARTER

Classes Begin.....July 2 (M)
Independence Holiday.....July 4 (W)
End of 1st 4-week Session July 27 (F)
2nd 4-week Session begins.....July 30 (M)
Last day of second 4-week Session August 24 (F)
End of 8-week Session..... August 24 (F)

FALL QUARTER

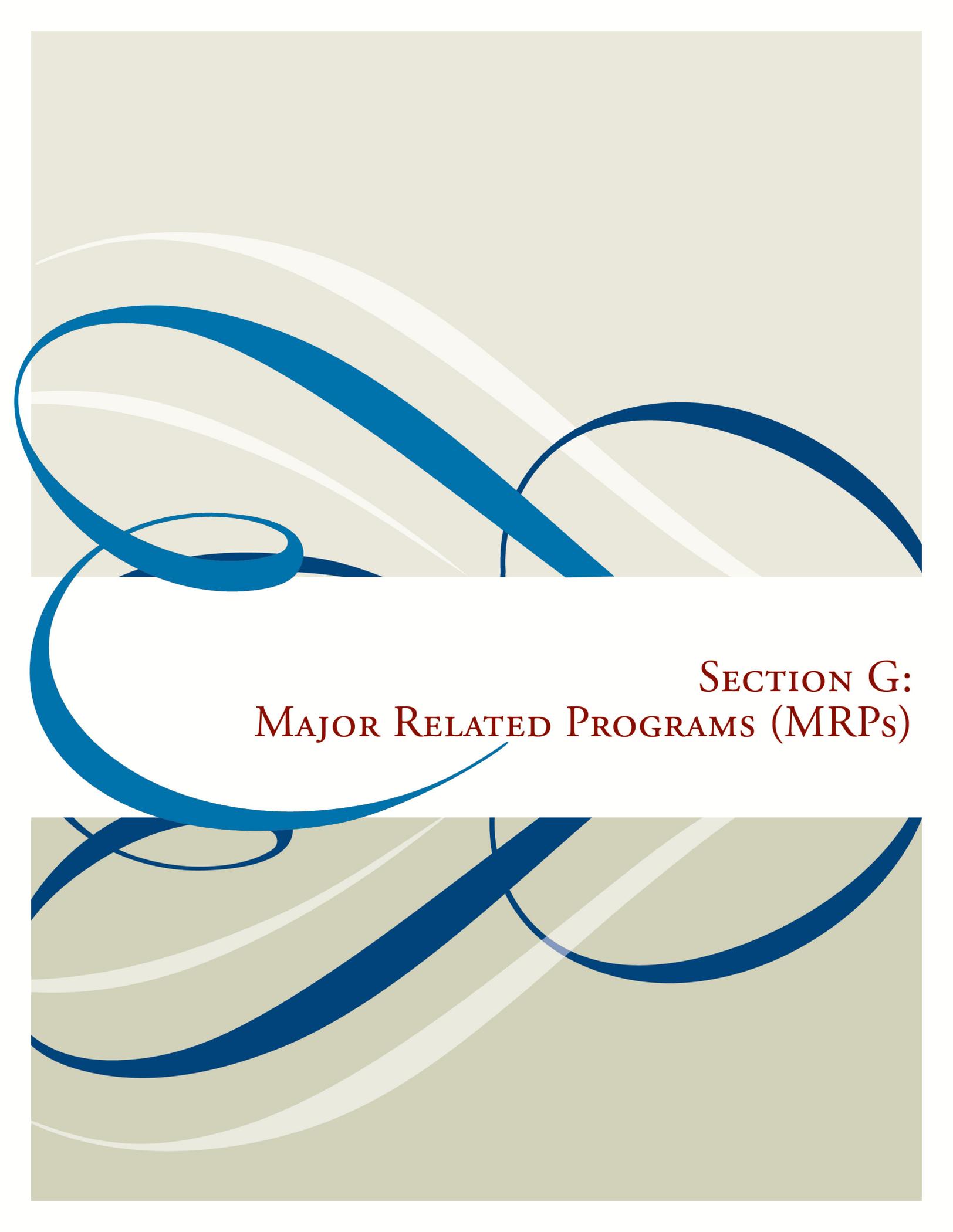
Labor Day Holiday September 3 (M)
Classes Begin.....September 24 (M)
Faculty Workday October 12 (F)
Veteran's Holiday November 12 (M)
No Evening Classes..... November 21 (W)
Faculty Workday November 21 (W)
Thanksgiving Holiday..... November 22-23 (Th-F)
Last Day of ClassesDecember 7 (F)
Final ExamsDecember 10-13 (M-T-W-Th)
Faculty Workday December 14 (F)
Christmas Holiday..... December 25 (T)

WINTER QUARTER

New Year's DayJanuary 1 (T)
Classes Begin..... January 7 (M)
Martin Luther King Holiday.....January 21 (M)
President's Day Holiday..... February 15 (F)
Last Day of ClassesMarch 18 (M)
Final Exams March 19-22 (T-W-Th-F)
Faculty WorkdayMarch 25 (M)

SPRING QUARTER

Classes Begin.....April 8 (M)
Memorial Day Holiday.....May 27 (M)
Last Day of Classes June 14 (F)
Final Exams June 17-20 (M-T-W-Th)
GraduationJune 20 (Th)
Faculty Workday June 21 (F)



SECTION G:
MAJOR RELATED PROGRAMS (MRPs)

SECTION G: Major Related Programs (MRPs)

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Bioengineering and Chemical Pre-Engineering Associate of Science Track 2 MRP

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has this difference from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (5 credits)

MRP Requirements: 5 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)

Generic Requirements: 2. Mathematics (10 credits)

Two courses at or above introductory calculus level. Third quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

MRP Requirements: Calculus I, II, III – 15 credits

Differential Equations – 5 credits

Clark College equivalents: MATH&151 (5 cr.)

MATH&152 (5 cr.)

MATH&153 (5 cr.)

MATH 221 (5 cr.)

Notes: Clark requires concurrent enrollment of completion in MATH&254 when taking MATH221. MATH103 and MATH111 are required prerequisites for MATH&151 that may be needed if calculus placement is not met via COMPASS.

Generic Requirements: 3. Physics (15 credits)

Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

MRP Requirements: Engineering Physics I, II, III + labs – 15-18 credits

Clark College equivalents: PHYS&221 (5 cr.)

PHYS&222 (5 cr.)

PHYS&223 (5 cr.)

Notes: Clark requires concurrent enrollment in PHYS094, 095, and 096.

Generic Requirements: 4. Chemistry with Laboratory (5 credits)

MRP Requirements: General Chemistry I, II, III + labs – 15-18 credits

Organic Chemistry I + lab – 4-6 credits

Organic Chemistry II + lab **OR** Biology for Science Majors + lab

Clark College equivalents: CHEM&141, 151 (5 cr.)

CHEM&142, 152 (5 cr.)

CHEM&143, 153 (6 cr.)

CHEM&241, 251 (5 cr.)

CHEM&242, 252 (5 cr.) **OR** BIOL&221 (5 cr.)

B. Distribution Requirements

Generic Requirements: 1. Humanities/Fine Arts/English and Social Sciences (15 credits)

MRP Requirements: Minimum 15 quarter credits:

Minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science for a total of 15 credits.

Clark College equivalents: A course in Economics is recommended (ECON&201 or 202).

PHIL&106 is strongly recommended as the Humanities course.

Notes: Courses taken must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GER's/GUR's) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

C. Electives

Generic Requirements: The remaining quarter credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards, as approved by the advisor.

MRP Requirements: Engineering (14-15 credits)

Select 3 electives as appropriate for intended major and intended baccalaureate institution:

- Computer Programming – 4-5 credits
 - Linear Algebra
 - Calculus IV (Advanced or Multi-variable Calculus)
 - Technical Writing
 - Electrical Circuits
-

- Statics
- Thermodynamics
- Chemical Process, Principles and Calculations
- Biology for Science Majors I + labs
- Biology for Science Majors II + labs
- Organic Chemistry 2 + labs

Clark College equivalents: Required at Clark: MATH&254 (5 cr.) – Calculus IV
Other electives as advised dependent on transfer institution.

Total credits: 90-103 credits

Biology DTA/MRP

This pathway is applicable to students planning to prepare for upper-division bachelor's degree majors in Biology. Many students transfer to baccalaureate institutions after completing the Associate Degree Direct Transfer Agreement (DTA); this pathway does not alter that agreement or the possibility that students may continue to follow this path. This Biology MRP streamlines and facilitates preparation for upper-division coursework in Biology across the state.

This document represents an agreement between the following baccalaureate institutions offering bachelor's degrees in Biology or a related field and the community and technical college system. Baccalaureate institutions party to this agreement include: Central Washington University; Eastern Washington University; The Evergreen State College; University of Washington Seattle; Washington State University Pullman; Western Washington University; Saint Martin's University; Seattle University; and Whitworth University.

Where the degree below allows for choice in courses, students are urged to contact potential transfer institutions to ensure that the courses chosen are best for the pathway.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework, and
- As of Fall 2011, Clark requires a course in Oral Communication, and
- Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

A. Basic Requirements

Generic DTA Requirements: 1. Communications Skills (10 credits)

MRP Requirements: 10 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)
ENGL&102 (5 cr.)

Notes: May be individualized based on baccalaureate college of choice.

Generic DTA Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)
Intermediate algebra proficiency is required.

MRP Requirements: 5 quarter credits of mathematics—Calculus I

Clark College equivalents: MATH&151 (5 cr.)

Clark College equivalents: Statistics (a course that includes descriptive and inferential statistics) may substitute for Calculus I at some institutions; students are encouraged to check with the transfer institution early in their decision process to confirm requirements.

Intermediate Algebra proficiency may be demonstrated by successful completion of a Calculus and/or Statistics course for which Intermediate Algebra is a prerequisite.

B. Distribution Requirements

Generic DTA Requirements: 1 Humanities (15 credits)

MRP Requirements: 15 quarter credits of Humanities

Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

Clark College equivalents: 15 quarter credits of Humanities as defined in the Clark College catalog.

Notes: In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their Biology curriculum.

Generic DTA Requirements: 2. Social Sciences (15 credits)

MRP Requirements: 15 quarter credits of Social Sciences

Clark College equivalents: 15 quarter credits of Social Sciences as defined in the Clark College catalog.

Notes: In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the social science courses that best support or may be required as prerequisites to their Biology curriculum.

Generic DTA Requirements: 3. Natural Sciences (minimum of 15 credits)

MRP Requirements: 30 quarter credits, including:

- 15 credits general biology (majors level)
- 15 credits general chemistry (majors level)

Clark College equivalents: 31 quarter credits as follows:

BIOL&221 (5 cr.)
BIOL&222 (5 cr.)
BIOL&223 (5 cr.)
CHEM&141 (4 cr.)
CMEH&142 (4 cr.)
CHEM&143 (4 cr.)
CHEM&151 (1 cr.)
CMEH&152 (1 cr.)
CHEM&153 (2 cr.)

Notes: A full year sequence at a single college is the best preparation for the baccalaureate biology degree.

C. Electives

Generic DTA Requirements: Elective credits

MRP Requirements: 15 additional quarter credits

Clark College equivalents: 14 additional quarter credits (note: Clark's chemistry sequence has 16 credits)

Notes: Electives allow students to include additional courses to prepare for the biology major based on college selection. Examples include a full year sequence of organic chemistry for majors; a full year sequence of physics for science majors; or further math at the pre-calculus level or above or statistics.

Students should check with the transfer institution prior to taking any further biology courses beyond the one-year sequence. Some colleges require all continuing biology courses be taken at the 300 level.

Biology Education Associate of Science Track 1 MRP

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has these differences from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (5 credits)

MRP Requirements: 5 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)

Generic Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)

Intermediate algebra proficiency is required.

MRP Requirements: 10 quarter credits of calculus

Intermediate algebra proficiency is required.

Clark College equivalents: MATH&151 (5 cr.)

MATH&152 (5 cr.)

Notes: Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

Generic Requirements: 1. Humanities/Fine Arts/English and Social Sciences (15 credits)

15 credits of humanities and social science with at least five credits taken from each. Three different subjects required. No more than 5 credits of performance classes are allowed.

MRP Requirements: 5 quarter credits Introductory Speech

5 quarter credits General Psychology

Clark College equivalents: CMST&220 (5 cr.)

PSYC&100 (5 cr.)

Plus 5 additional HUM or SS credits.

Notes: Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution.

Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

Generic Requirements: 2. Science Pre-Major Requirement

i. Chemistry for science majors sequence (15 quarter credits)

ii. Third-quarter calculus or approved statistics course (5 quarter credits)

iii. Biology for science majors or physics (calculus or non-calculus based)
(15 quarter credits)

iv. Additional requirements: 10 – 15 quarter credits in physics, geology, organic chemistry, biology, or mathematics, consisting of courses normally taken for science majors (not general education), preferably in a 2- or 3-quarter sequence.

MRP Requirements: • 15 quarter credits General Chemistry

- 15 quarter credits Organic Chemistry
- 15 quarter credits of majors level biology
- 5 quarter credits statistics

Clark College equivalents: CHEM&141 (4 cr.)

CHEM&142 (4 cr.)

CHEM&143 (4 cr.)

CHEM&151 (1 cr.)

CHEM&152 (1 cr.)

CHEM&153 (2 cr.)

CHEM&241 (4 cr.)

CHEM&242 (4 cr.)

CHEM&243 (4 cr.)

CHEM&251 (1 cr.)

CHEM&252 (1 cr.)

CHEM&253 (2 cr.)

BIOL&221 (5 cr.)

BIOL&222 (5 cr.)

BIOL&223 (5 cr.)

MATH203 (3 cr.) and MATH204 (3 cr.)

Notes: Students should be advised that some baccalaureate institutions require physics with calculus to meet this requirement. This would cause the degree to be 105 credits.

C. Electives

Generic Requirements: Additional college-level courses so that total earned is at least 90 credits. May include prerequisites for major courses (e.g. pre-calculus), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

MRP Requirements:

- 10-15 credits, depending on pathways above
- 5 additional quarter credits of English composition
- Field Experience or Intro to Education recommended
- 15 quarter credits of Physics recommended

Clark College equivalents:

- ENGL&102 (5 cr.) required.
- EDUC&201 (3 cr.) and EDUC210 (3 cr.) recommended.
- PHYS&221, 222, and 223 recommended
- Plus additional credits to reach 90 minimum quarter credits. These may include needed college-level calculus prerequisites.

Notes: A maximum of five (5) quarter credits of “gray area” courses will be accepted in the remaining credits category.

Students should consult with baccalaureate institutions on the Physics courses—the addition of these courses may bring the degree total to 105 credits.

Business DTA/MRP

This pathway is applicable to students planning to prepare for various business majors at universities in Washington¹. Effective July 1, 2012, this agreement cancels and supersedes the existing statewide Business DTA agreement dated Summer 2003 and revised April 2006. Prior to July 1, 2012, parties to the 2006 and 2003 Business DTA MRP agree to continue to honor that agreement until July 1, 2014. This agreement shall be subject to review and renewal by all parties not later than September 2016.

This document represents the business DTA/MRP agreement that meets all requirements of Washington’s Direct Transfer Agreement, between the baccalaureate institutions offering a Bachelor of Science or Bachelor of Arts in business administration including accounting, management, and management information systems and the community and technical college system. Baccalaureate institutions party to this agreement are Central Washington University, Eastern Washington University, University of Washington (all campuses), Washington State University (all campuses), Western Washington University, Gonzaga University, Heritage University, Pacific Lutheran University, Saint Martin’s University, Seattle Pacific University, Seattle University, Walla Walla University, and Whitworth University.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- a. Clark requires 3 credits of Health-Physical Education coursework,
- b. As of Fall 2011, Clark requires a course in Oral Communication, and
- c. Clark’s Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

¹ This DTA/MRP is not intended for Community and Technical College students pursuing a terminal professional/technical degree in Business.

A. Basic Requirements

Generic DTA Requirements: 1. Communications Skills (10 credits)

MRP Requirements: 10 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)
ENGL&102 (5 cr.) or ENGL&235 (5 cr.)

Notes: ENGL&102 is REQUIRED at Eastern Washington University.

Generic DTA Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)

Intermediate algebra proficiency is required

MRP Requirements: 10 credits total

Must include 5 credits of business calculus, calculus I or a higher-level math that includes calculus as a prerequisite.

May include finite math or pre-calculus prerequisites for calculus or other courses to prepare for business calculus.

Clark College equivalents: Course 1: MATH&148, 151, 152, 153, 215, 221, or 254 (5 cr.)

Course 2: MATH103 or 105; MATH&111, 152, 153, 215, 221, or 254 (5 cr.)

B. Distribution Requirements

Generic DTA Requirements: 1. Humanities (15 credits)

MRP Requirements: 15 quarter credits of Humanities

Consistent with the requirements in all DTA degrees – no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

Clark College equivalents: 15 quarter credits of Humanities as defined in the Clark College catalog.

CMST&220 is strongly recommended.

Notes: Students intending the international business major should consult their potential transfer institutions regarding the level of world language required for admission to the major. 5 credits in world languages may apply to the Humanities requirement.

CMST&220 is specifically required for WSUV business transfer.

Generic DTA Requirements: 2. Social Sciences (15 credits)

MRP Requirements: 15 quarter credits of Social Sciences, specifically:

- 5 credits, microeconomics
- 5 credits, macroeconomics
- 5 credits additional social science (not economics)

Clark College equivalents: ECON&201 (5 cr.)

ECON&202 (5 cr.)

5 credits of social science outside economics

Generic DTA Requirements: 3. Natural Sciences

MRP Requirements: 15 quarter credits to include:

- 5 credits in statistics (business statistics preferred)
 - 10 credits physical, biological, and/or earth science, including at least one lab course.
-

Clark College equivalents: BUS or MATH203 (3 cr.)
BUS or MATH204 (3 cr.)
10 credits of natural science course work, including one lab, as defined by Clark College

Notes: Students intending the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.

C. Major Requirements

Generic DTA Requirements: 6. Business courses

MRP Requirements: 20 credits, including:

- 5 credits, Intro to Financial Accounting
- 5 credits, Financial Accounting II
- 5 credits, Managerial Accounting
- 5 credits, Business Law or Introduction to Law

Clark College equivalents: For all schools except UW:

ACCT&201 (5 cr.)
ACCT&202 (5 cr.)
ACCT&203 (5 cr.)
BUS&201 (5 cr.)

Notes: Universities with a lower-division Business Law requirement: UW (all campuses), WSU (all campuses) EWU, CWU, WWU, Gonzaga, SMU, SPU, Whitworth.

The following institutions do not require a *lower-division* Business Law course and agree to accept the course taken as part of this degree as a lower-division elective, but generally not as an equivalent to the course required at the upper division: Heritage, PLU, SU, and Walla Walla University.

International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in U.S. business law.

D. Electives

Generic DTA Requirements: 7. Elective courses

MRP Requirements: 5 credits of electives

Clark College equivalents: 5 credits of electives

Notes: Five institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of the elective **University Course Equivalent to:**

- WSU (all campuses): Management Information Systems MIS 250
- Gonzaga: Management Information Systems BMIS 235
- PLU: Computer applications CSCE 120, either an equivalent course or skills test
- SPU: Spreadsheets BUS 1700, either an equivalent course or skills test
- WWU: Introduction to Business Computer Systems MIS 220 (for transfer students entering fall 2014)

Chemistry Education Associate of Science Track 1 MRP

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has these differences from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for checking specific major requirements of baccalaureate institutions in the year prior to transferring.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (5 credits)

MRP Requirements: 5 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)

Generic Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)

Intermediate algebra proficiency is required.

MRP Requirements: 10 quarter credits of calculus

Intermediate algebra proficiency is required.

Clark College equivalents: MATH&151 (5 cr.)

MATH&152 (5 cr.)

Notes: Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

Generic Requirements: 1. Humanities/Fine Arts/English and Social Sciences (15 credits)

15 credits of humanities and social science with at least five credits taken from each. Three different subjects required. No more than 5 credits of performance classes are allowed.

MRP Requirements: 5 quarter credits Introductory Speech

5 quarter credits General Psychology

Clark College equivalents: CMST&220 (5 cr.)

PSYC&100 (5 cr.)

Plus 5 additional HUM or SS credits.

Notes: Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

Generic Requirements: 2. Science Pre-major Requirement

- i. Chemistry for science majors sequence (15 quarter credits)
- ii. Third quarter calculus or approved statistics course (5 quarter credits)
- iii. Biology for science majors or physics (calculus or non-calculus based) (15 quarter credits)
- iv. Additional requirements: 10 – 15 quarter credits in physics, geology, organic chemistry, biology, or mathematics, consisting of courses normally taken for science majors (not general education), preferably in a 2- or 3-quarter sequence.

MRP Requirements: 15 quarter credits General Chemistry
15 quarter credits Organic Chemistry
15 quarter credits Physics (algebra or calc-based)
5 quarter credits statistics or 3rd-quarter calculus

Clark College equivalents: CHEM&141 (4 cr.)
CHEM&142 (4 cr.)
CHEM&143 (4 cr.)
CHEM&151 (1 cr.)
CHEM&152 (1 cr.)
CHEM&153 (2 cr.)
CHEM&241 (4 cr.)
CHEM&242 (4 cr.)
CHEM&243 (4 cr.)
CHEM&251 (1 cr.)
CHEM&252 (1 cr.)
CHEM&253 (2 cr.)
PHYS&221 (5 cr.)
PHYS&222 (5 cr.)
PHYS&223 (5 cr.)
MATH&153 (5 cr.) OR
MATH203 (3 cr.) and MATH204 (3 cr.)

Notes: Students should be advised that some baccalaureate institutions require physics with calculus to meet this requirement.

C. Electives

Generic Requirements: Additional college-level courses so that total earned is at least 90 credits. May include prerequisites for major courses (e.g. pre-calculus), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

MRP Requirements: 10-15 credits, depending on pathways above
5 additional quarter credits of English composition
Field Experience or Intro to Education recommended

Clark College equivalents: ENGL&102 (5 cr.) required.
EDUC&201 (3 cr.) and EDUC210 (3 cr.) recommended.
Plus additional credits to reach 90 minimum quarter credits. These may include
needed college-level calculus prerequisites.

Notes: A maximum of five (5) quarter credits of “gray area” courses will be accepted in the remaining credits category

Computer and Electrical Pre-Engineering Associate of Science Track 2 MRP

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has these differences from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (5 credits)

MRP Requirements: 5 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)

Generic Requirements: 2. Mathematics (10 credits)

Two courses at or above introductory calculus level. Third quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

MRP Requirements: Calculus I, II, III – 15 credits

Differential Equations – 5 credits

Linear Algebra – 5 credits

Clark College equivalents: MATH&151 (5 cr.)

MATH&152 (5 cr.)

MATH&153 (5 cr.)

MATH 215 (5 cr.)

MATH 221 (5 cr.)

Notes: Clark requires concurrent enrollment of completion in MATH&254 when taking MATH221.
MATH103 and MATH111 are required prerequisites for MATH&151 that may be needed if calculus placement is not met via COMPASS.

Generic Requirements: 3. Physics (15 credits)

Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

MRP Requirements: Engineering Physics I, II, III + labs – 15 to 18 credits

Clark College equivalents: PHYS&221 (5 cr.)

PHYS&222 (5 cr.)

PHYS&223 (5 cr.)

Notes: Clark requires concurrent enrollment in PHYS094, 095, and 096.

Generic Requirements: 4. Chemistry with Laboratory (5 credits)

MRP Requirements: General Chemistry I + labs – 5 credits

Clark College equivalents: CHEM&141, 151 (5 cr.)

Generic Requirements: 5. Required Major Courses

MRP Requirements: Electrical Circuits – 4-5 credits

Computer Programming – 4-5 credits

Clark College equivalents: ENGR&204 (5 cr.)

CSE121 (5 cr.)

B. Distribution Requirements

Generic Requirements: 1. Humanities/Fine Arts/English and Social Sciences (15 credits)

MRP Requirements: Minimum 15 quarter credits:

Minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science for a total of 15 credits.

Clark College equivalents: A course in Economics is recommended (ECON&201 or 202).

PHIL&106 is strongly recommended as the Humanities course.

Notes: Courses taken must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GER's/GUR's) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

C. Electives

Generic Requirements: The remaining quarter credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards, as approved by the advisor.

MRP Requirements: Math, Science & Engr. Electives (20-25 credits)

Select 5 electives as appropriate for intended major and intended baccalaureate institution:

- A second course in Computer Programming – object oriented – 4-5 credits
- Innovation in Design
- Calculus IV (Advanced or Multi-variable Calculus)
- Technical Writing
- Statics
- Dynamics
- Thermodynamics
- Digital Logic
- Biology for Science Majors I + labs
- General Chemistry II + lab
- Applied Numerical Methods
- Microprocessors

Clark College equivalents: Required at Clark: MATH&254 (5 cr.) – Calculus IV

Other electives as advised dependent on transfer institution.

Total credits: 95-104 credits

Elementary Education DTA/MRP

This pathway is applicable to students planning to prepare for upper-division elementary education major.

As of January 2006 this document represents a new agreement between the following baccalaureate institutions offering Elementary Education bachelor's degrees and the community and technical colleges system. Baccalaureate institutions party to this agreement are: CWU, EWU, WSU, WWU, City University, Gonzaga, Heritage, PLU, SMU, SPU, Walla Walla University, and Whitworth.

Since Clark has had a long-standing degree path with WSUV in Elementary Education, students should follow the specific MRP for WSUV to ensure that they are meeting WSUV's cohort admissions requirements.

Although not required for this degree, students should be advised they must take the WEST-B in order to apply to teacher preparation programs.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- a. Clark requires 3 credits of Health-Physical Education coursework, and
- b. As of Fall 2011, Clark requires a course in Oral Communication, and
- c. Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

A. Basic Requirements

Generic DTA Requirements: 1. Communications Skills (10 credits)

MRP Requirements: 10 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)
ENGL&102 (5 cr.)

Generic DTA Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)

Intermediate algebra proficiency is required.

MRP Requirements: 9-15 quarter-based credits of math content at the lower division level must include number theory, geometry, probability and statistics, with a focus on the development of mathematical concepts in elementary education curriculum. These credits will be accepted by the baccalaureate institutions as fulfilling the lower division math requirements in the Direct Transfer Agreement (DTA) and any additional math credits which may go beyond those requirements will be accepted as electives.

Intermediate algebra proficiency is required.

Clark College equivalents: MATH120 (5 cr.)
MATH121 (5 cr.)
OR
MATH122 (5 cr.)
MATH123 (5 cr.)
MATH124 (5 cr.)

B. Distribution Requirements

Generic DTA Requirements: 1. Humanities (15-20 credits)

MRP Requirements: 15-20 credits in Humanities include:

Required

3-5 credits public speaking

5 credits US History (might be a Social Science at some community colleges).

Recommended

7-12 credits from the following list: art, music, literature, or drama/theater.

Consistent with the requirements in all DTA degrees – no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

Clark College equivalents: CMST&220 (5 cr.) – Fulfills oral communication requirement.

HIST&146, 147, or 148 (5 cr.)

7-12 additional humanities courses

Generic DTA Requirements: 2. Social Sciences (20 credits)

MRP Requirements: 20 credits in Social Sciences, representing at least 3 disciplines, include:

Required

5 credits World Civilization or Non-Western History

Recommended

15 credits from the following list: Economics, Geography, Political Science, Psychology, or additional History.

Integrated coursework covering several of these topics is encouraged.

Clark College equivalents: HIST& 126, 127, or 128 (5 cr.)

15 additional credits from majors at left. No more than 10 credits in one discipline.

Notes: WSU, CWU, & SM require developmental (lifespan) psychology.

Generic DTA Requirements: 3. Natural Sciences

MRP Requirements: 15 credits in Natural Sciences include:

- 5 credits Biological sciences
- 5 credits Geology or Earth Science
- 5 credits physical sciences (Chemistry or Physics),
two of the above with lab

Clark College equivalents: 15 credits in Natural Sciences include:

- 5 credits Biological sciences
- 5 credits Geology or Earth Science
- 5 credits physical sciences (Chemistry or Physics),
two of the above with lab

C. Major Requirements

MRP Requirements: The baccalaureate institutions will accept 5 quarter credits of education-specific professional introduction coursework, if the coursework meets the following Washington endorsement competencies for Elementary Teachers:

- an exploration of the historical, philosophical and social aspects of elementary education
- an evaluation from the field site supervisor observing the student's work with children
- awareness of the certification process in the state of Washington

Clark College equivalents: EDUC&201 (3 cr.)
EDUC210 (3 cr.)

MRP Requirements: A minimum of 30 hours of K-8 classroom experience must be included during the degree program.

Clark College equivalents: Students should consult with the transfer institution to ensure fulfillment of this requirement.

MRP Requirements: 3-5 credits in gender/culture coursework

Clark College equivalents: Students should consult with the transfer institution to ensure fulfillment of this requirement.

MRP Requirements: Students should be able to demonstrate computer literacy in software programs including word processing, PowerPoint, spreadsheets, in addition to being proficient on the Internet. These skills may be demonstrated through a portfolio of files gathered during their education coursework.

Clark College equivalents: Students should consult with the transfer institution to ensure fulfillment of this requirement.

D. Electives

Generic DTA Requirements: Elective courses

MRP Requirements: Other college-level courses, of which a maximum of 15 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution. Where appropriate, preparation courses for the major, minor, or professional certification should ideally be included in this coursework.

Clark College equivalents: Credits that fulfill the requirements at left to bring the total degree to 90 credits

Elementary Education DTA/MRP—WSUV Pathway

This pathway is applicable to students planning to prepare for upper division elementary education major. This degree is defined specifically for transfer to the WSUV cohort program in elementary education and replaces the AA-DTA for WSUV transfer in Elementary Education.

The courses listed below are based on admissions requirements for the 2012 Bachelor of Arts in Education/Teacher Preparation Program. Requirements may change as time goes forward, and students should consult with WSUV to keep abreast of these.

This degree is specifically tailored to WSUV. Students completing this program will receive an Elementary Education DTA/MRP. Students should consult with other institutions about their specific entry requirements.

The coding for this degree is NOT different than that of the standard Elementary Education degree.

Although not required for this degree, students should be advised they must take the WEST-B in order to apply to teacher preparation programs.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (10 credits)

MRP Requirements: 10 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.) ENGL&102 (5 cr.)

Generic Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)

Intermediate algebra proficiency is required

MRP Requirements: 9-15 quarter-based credits of math content at the lower division level must include number theory, geometry, probability and statistics, with a focus on the development of mathematical concepts in elementary education curriculum. These credits will be accepted by the baccalaureate institutions as fulfilling the lower division math requirements in the Direct Transfer Agreement (DTA) and any additional math credits which may go beyond those requirements will be accepted as electives.

Intermediate algebra proficiency is required

Clark College equivalents: MATH120 (5 cr.)
MATH121 (5 cr.)
OR
MATH122 (5 cr.)
MATH123 (5 cr.)
MATH124 (5 cr.)

Note: The Math 120-121 sequence was discontinued in 2011-12; it will continue to be accepted for the degree at this time. New students need to take the 15-credit sequence.

B. Distribution Requirements

Generic Requirements: 1. Humanities (15-20 credits)

MRP Requirements: 15-20 credits in Humanities include:

Required

3-5 credits public speaking

5 credits US History (might be a Social Science at some community colleges).

Recommended

7-12 credits from the following list: art, music, literature, or drama/theater.

Consistent with the requirements in all DTA degrees—no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

Clark College equivalents: Requirements:

CMST&220 (5 cr.)—Fulfills oral communication requirement.

MUS106 (3 cr.)

HIST&146, 147, or 148 (5 cr.)

Recommended:

ENGL105 (5 cr) will be accepted as a Humanities course for the Elementary Education degree.

Generic Requirements: 2. Social Sciences (20 credits)

MRP Requirements: 20 credits in Social Sciences, representing at least 3 disciplines, include:

Required

5 credits World Civilization or non-Western History,

Recommended

15 credits from the following list: Economics, Geography, Political Science, Psychology, or additional History.

Integrated coursework covering several of these topics is encouraged.

Clark College equivalents: Required for the MRP:

• HIST&126, 127, or 128 (5 cr.)

Required for WSUV admission:

• PSYC&100 (5 cr.)

• PSYC&200 (5 cr.)

• POLS111 or 171 (3-5 cr.)

• GEOG&100 (5 cr.) and ECON101, &201, or &202 (3-5 cr.)

OR

• GEOG&207, 220, 221, 222, or 223 (5 cr.)

Notes: GEOG&207 is formerly ECON107 or GEOG107.

GEOG207, 220, 221, 222, or 223 will be accepted for both the geography and the economics requirements.

Generic Requirements: 3. Natural Sciences

MRP Requirements: 15 credits in Natural Sciences include:

- 5 credits Biological sciences
- 5 credits Geology or Earth Science
- 5 credits physical sciences (Chemistry or Physics), two of the above with lab

Clark College equivalents: 15 credits in Natural Sciences include:

- 5 credits Biological sciences
- 5 credits Geology or Earth Science
- 5 credits physical sciences (Chemistry or Physics), two of the above with lab

C. Major Requirements

MRP Requirements: The baccalaureate institutions will accept 5 quarter credits of education-specific professional introduction coursework, if the coursework meets the following Washington endorsement competencies for Elementary Teachers:

- an exploration of the historical, philosophical and social aspects of elementary education
- an evaluation from the field site supervisor observing the student's work with children
- awareness of the certification process in the state of Washington

Clark College equivalents: EDUC&201 (3 cr.)
EDUC210 (3 cr.)

MRP Requirements: A minimum of 30 hours of K-8 classroom experience must be included during the degree program.

Clark College equivalents: Students should consult with the transfer institution to ensure fulfillment of this requirement.

MRP Requirements: 3-5 credits in gender/culture coursework

Clark College equivalents: Students should consult with the transfer institution to ensure fulfillment of this requirement.

MRP Requirements: Students should be able to demonstrate **computer literacy** in software programs including word processing, PowerPoint, spreadsheets, in addition to being proficient on the Internet. These skills may be demonstrated through a portfolio of files gathered during their education course work.

Clark College equivalents: Students should consult with the transfer institution to ensure fulfillment of this requirement.

C. Electives

Generic Requirements: Elective courses

MRP Requirements: Other college-level courses, of which a maximum of 15 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution. Where appropriate, preparation courses for the major, minor, or professional certification should ideally be included in this course work.

Clark College equivalents: Credits that fulfill the requirements at left to bring the total degree to 90 credits

General Science Education AST1 MRP

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has these differences from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for checking specific major requirements of baccalaureate institutions in the year prior to transferring.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (5 credits)

MRP Requirements: 5 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)

Generic Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)

Intermediate algebra proficiency is required.

MRP Requirements: 10 quarter credits of calculus

Intermediate algebra proficiency is required.

Clark College equivalents: MATH&151 (5 cr.)

MATH&152 (5 cr.)

Notes: Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

Generic Requirements: 1. Humanities/Fine Arts/English and Social Sciences (15 credits)

15 credits of humanities and social science with at least five credits taken from each.

Three different subjects required. No more than 5 credits of performance classes are allowed.

MRP Requirements: 5 quarter credits Introductory Speech

5 quarter credits General Psychology

Clark College equivalents: CMST&220 (5 cr.)

PSYC&100 (5 cr.)

Plus 5 additional HUM or SS credits.

Notes: Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

Generic Requirements: 2. Science Pre-major Requirement

- i. Chemistry for science majors sequence (15 quarter credits)
- ii. Third quarter calculus or approved statistics course (5 quarter credits)
- iii. Biology for science majors or physics (calculus or non-calculus based) (15 quarter credits)
- iv. Additional requirements: 10 – 15 quarter credits in physics, geology, organic chemistry, biology, or mathematics, consisting of courses normally taken for science majors (not general education), preferably in a 2- or 3- quarter sequence.

MRP Requirements: 5 quarter credits statistics

PLUS

3 OUT OF FOUR OF THE FOLLOWING:

- 15 quarter credits General Chemistry
- 15 quarter credits Biology for Majors
- 15 quarter credits Physics (algebra or calc-based)
- 10 quarter credits Geology (physical and historical)

Clark College equivalents: MATH203 (3 cr.) and MATH204 (3 cr.)

PLUS

Three of four of these sequences

1. Chemistry

CHEM&141 (4 cr.)

CHEM&142 (4 cr.)

CHEM&143 (4 cr.)

CHEM&151 (1 cr.)

CHEM&152 (1 cr.)

CHEM&153 (2 cr.)

2. Biology

BIOL&221 (5 cr.)

BIOL&222 (5 cr.)

BIOL&223 (5 cr.)

3. Physics

PHYS&221 (5 cr.)

PHYS&222 (5 cr.)

PHYS&223 (5 cr.)

4. Geology

GEOL&101 (5 cr.)

GEOL103 (5 cr.)

Notes: Students should be advised that some baccalaureate institutions require physics with calculus to meet this requirement.

C. Electives

Generic Requirements: Additional college-level courses so that total earned is at least 90 credits. May include prerequisites for major courses (e.g. pre-calculus), additional major coursework, or specific general education or other university requirements, as approved by the advisor.

MRP Requirements: 10-15 credits, depending on pathways above.
5 additional quarter credits of English composition.
Field Experience or Intro to Education recommended
15 quarter credits of Physics recommended

Clark College equivalents: ENGL&102 (5 cr.) required.
EDUC&201 (3 cr.) and EDUC210 (3 cr.) recommended.
5 additional credits required if only 45 credits are taken in the major area above (if Geology is chosen as an option).
Plus additional credits to reach 90 minimum quarter credits. These may include needed college-level calculus prerequisites.

Notes: A maximum of five (5) quarter credits of “gray area” courses will be accepted in the remaining credits category.

Math Education DTA/MRP

This pathway is applicable to students planning to prepare for math education majors at the secondary level at universities in Washington. Students need to make early contact with their potential transfer institutions regarding the specific course choices in each area of the agreement where options are listed. Students also need to check with their potential transfer institutions regarding the requirement for overall minimum GPA, a higher GPA in a selected subset of courses or a specific minimum grade in one or more courses such as math or English.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- a. Clark requires 3 credits of Health-Physical Education coursework, and
- b. As of Fall 2011, Clark requires a course in Oral Communication, and
- c. Clark’s Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

A. Basic Requirements

Generic DTA Requirements: 1. Communications Skills (10 credits)

MRP Requirements: 10 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)
ENGL&102 or 109 (5 cr.)

Generic DTA Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)
Intermediate algebra proficiency is required.

MRP Requirements: 5 quarter credits: First-quarter calculus
Intermediate algebra proficiency is required.

Clark College equivalents: MATH&151 (5 cr.)

B. Distribution Requirements

Generic DTA Requirements: 1. Humanities (15 credits)

MRP Requirements: Introductory Speech and 10 credits of other humanities

Consistent with the requirements in all DTA degrees - no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

Clark College equivalents: CMST&220 (5 cr.)—Fulfills oral communications requirement.

10 other credits of humanities meeting the stipulations for the DTA

Generic DTA Requirements: 2. Social Sciences (15 credits)

MRP Requirements: 15 quarter credits of Social Sciences, specifically:

- 5 credits, Intro to Psychology
- 10 credits, other social sciences

Clark College equivalents: PSYC&100 (5 cr.)

10 credits of social science (maximum of 5 cr. additional psychology)

Generic DTA Requirements: 3. Natural Sciences (15 credits)

MRP Requirements: 15 quarter credits to include:

- 2nd-quarter calculus
- 10 credits physical, biological, and/or earth science, including at least one lab course

Clark College equivalents: MATH&152 (5 cr.)

10 credits of natural science coursework, including one lab, as defined by Clark College

C. Major Requirements

Generic DTA Requirements: 1. Math courses

MRP Requirements: 3rd- and 4th-quarter calculus

Linear Algebra

Clark College equivalents: MATH&153 (5 cr.)

MATH215 (5 cr.)

MATH&254 (5 cr.)

Generic DTA Requirements: 2. Education courses

MRP Requirements: Field Experience/Intro to Education

Clark College equivalents: EDUC&201 (3 cr.)

EDUC210 (3 cr.)

Generic DTA Requirements: 3. Elective courses

MRP Requirements: Other college-level courses, of which a maximum of 15 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution. Where appropriate, preparation courses for the major, minor, or professional certification should ideally be included in this coursework.

Clark College equivalents: 9 credits of elective as defined above.

Mechanical/Civil/Aeronautical/Industrial/Materials Science pre-Engineering (Other Engineering) Associate of Science Track 2 MRP

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has these differences from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (5 credits)

MRP Requirements: 5 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)

Generic Requirements: 2. Mathematics (10 credits)

Two courses at or above introductory calculus level. Third-quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

MRP Requirements: Calculus I, II, III – 15 credits

Differential Equations – 5 credits

Linear Algebra – 5 credits

Clark College equivalents: MATH&151 (5 cr.)

MATH&152 (5 cr.)

MATH&153 (5 cr.)

MATH 215 (5 cr.)

MATH 221 (5 cr.)

Notes: Clark requires concurrent enrollment or completion in MATH&254 when taking MATH221.

MATH103 and MATH111 are required prerequisites for MATH&151 that may be needed if calculus placement is not met via COMPASS.

Generic Requirements: 3. Physics (15 credits)

Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

MRP Requirements: Engineering Physics I, II, III + labs – 15 to 18 credits

Clark College equivalents: PHYS&221 (5 cr.)

PHYS&222 (5 cr.)

PHYS&223 (5 cr.)

Notes: Clark requires concurrent enrollment in PHYS094, 095, and 096.

Generic Requirements: 4. Chemistry with Laboratory (5 credits)

MRP Requirements: General Chemistry I, II + labs – 5 credits

Clark College equivalents: CHEM&141, 151 (5 cr.)

CHEM&142, 152 (5 cr.)

Generic Requirements: 5. Required Major Courses

MRP Requirements: • Statics – 5 credits

• Mechanics of Materials – 5 credits

• Dynamics – 5 credits

Clark College equivalents: ENGR&214 (5 cr.)

ENGR&215 (5 cr.)

ENGR&225 (5 cr.)

B. Distribution Requirements

Generic Requirements: 1. Humanities/Fine Arts/English and Social Sciences (15 credits)

MRP Requirements: Minimum 15 quarter credits:

Minimum 5 credits in Humanities, minimum 5 credits in Social Science,

plus an additional 5 credits in either Humanities or Social Science for a total of 15 credits.

Clark College equivalents: A course in Economics is recommended (ECON&201 or 202).

PHIL&106 is strongly recommended as the Humanities course.

Notes: Courses taken must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GER's/GUR's) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

C. Electives

Generic Requirements: The remaining quarter credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards, as approved by the advisor.

MRP Requirements: Math/Engr Electives – (15 credits)

Select 4 Electives(15-20 credits) as appropriate for intended major and intended baccalaureate institution:

• Computer Programming – 4-5 credits

- Innovation in Design
- Calculus IV (Advanced or Multi-variable Calculus)
- 3-D Visualization and CAD (Engineering Graphics)
- Technical Writing
- Thermodynamics
- Electrical Circuits
- Materials Science
- Applied Numerical Methods

Clark College equivalents: Required at Clark: MATH&254 (5 cr.) – Calculus IV
Other electives as advised dependent on transfer institution.

Total credits: 102-110 credits

Physics Education Associate of Science Track 2 MRP

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AS degree path has these differences from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Students are responsible for checking specific major requirements of baccalaureate institutions in the year prior to transferring.

A. Basic Requirements

Generic Requirements: 1. Communications Skills (5 credits)

MRP Requirements: 5 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)

Generic Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)

Intermediate algebra proficiency is required.

MRP Requirements: 10 quarter credits of calculus

Intermediate algebra proficiency is required.

Clark College equivalents: MATH&151 (5 cr.)

MATH&152 (5 cr.)

Notes: Pre-Calculus courses do not meet this requirement.

B. Distribution Requirements

Generic Requirements: 1. Humanities/Fine Arts/English and Social Sciences (15 credits)
15 credits of humanities and social science with at least five credits taken from each.
Three different subjects required. No more than 5 credits of performance classes are allowed.

MRP Requirements: 5 quarter credits Introductory Speech
5 quarter credits General Psychology

Clark College equivalents: CMST&220 (5 cr.)
PSYC&100 (5 cr.)
Plus 5 additional HUM or SS credits

Notes: Courses in Humanities/Social Science must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GERs/GURs) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.

Generic Requirements: 2. Science Pre-major Requirement

- i. Physics (calculus-based or non-calculus based sequence) including laboratory (15 quarter credits)
- ii. Chemistry with laboratory (5 credits) required for Engineering majors. Others should select 5 credits of science based on advising.
- iii. Computer programming (4 quarter credits) credit course chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.
- iv. Third-quarter calculus or approved statistics course: 5 quarter credits chosen with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

MRP Requirements:

- 15 quarter credits Physics (calculus-based)
- 10 quarter credits General Chemistry
- 10 credits 3rd and 4th quarter calculus
- 5 quarter credits Linear Algebra
- 5 quarter credits Differential Equations

Clark College equivalents: PHYS&221 (5 cr.)
PHYS&222 (5 cr.)
PHYS&223 (5 cr.)

CHEM&141 (4 cr.)
CHEM&142 (4 cr.)
CHEM&151 (1 cr.)
CHEM&152 (1 cr.)

MATH&153 (5 cr.)
MATH&254 (5 cr.)
MATH215 (5 cr.)
MATH221 (5 cr.)

Notes: Students should be advised that some baccalaureate institutions require physics with calculus to meet this requirement.

C. Electives

Generic Requirements: The remaining 31 quarter credits should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend. For Engineering disciplines, these credits should include a design component consistent with ABET accreditation standards.

MRP Requirements: 10-15 credits, depending on pathways above
5 additional quarter credits of English composition
1 credit selected from this area within the AST
Field Experience or Intro to Education recommended

Clark College equivalents: ENGL&102 (5 cr.) required.
1 cr. selected from this area within the AST.
EDUC&201 (3 cr.) and EDUC210 (3 cr.) recommended.
Plus additional credits to reach 90 minimum quarter credits. These may include needed college-level calculus prerequisites.

Notes: A maximum of five (5) quarter credits of “gray area” courses will be accepted in the remaining credits category.

Pre-Nursing DTA/MRP

This pathway is applicable to students planning to prepare for upper-division Bachelor of Science, Nursing (Entry-to-practice/basic BSN pathway) by completing a broad selection of academic courses. Many students transfer to the BSN program after completing the Associate Degree Nursing (ADN) program (RN to BSN pathway); however, this agreement is not applicable to and does not alter those ADN to BSN articulation agreements.

Students planning a career pathway in Nursing should seek advisement from Clark College’s Advising Department early. Besides this degree, Clark has several consortial agreements with regard to degrees in Nursing.

This pathway streamlines preparation for the basic BSN pathway across the state. It does not, however, address the issue of significantly inadequate capacity (faculty, clinical opportunities, etc.) at the BSN level relative to workforce needs or current student interest. Due to high interest and limited space in BSN programs, admission to all BSN programs is highly competitive, with many qualified applicants finding themselves on waiting lists for admission.

This document represents an agreement between the following baccalaureate institutions offering an entry-to-practice/basic BSN program and the system of community and technical colleges. Baccalaureate institutions party to this agreement include: University of Washington, Seattle; Washington State University; Northwest University; Seattle University; Seattle Pacific University; Pacific Lutheran University; Walla Walla College. The Washington State University Intercollegiate College of Nursing (WSU-ICN) is a consortium whose members include Eastern Washington University, Gonzaga, and Whitworth. Associate degree transfers to WSU-ICN are admitted through WSU, not through the other consortium institutions. EWU participated in the development of this agreement.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- a. Clark requires 3 credits of Health-Physical Education coursework, and
- b Clark’s Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

A. Basic Requirements

Generic DTA Requirements: 1. Communications Skills (10 credits)

MRP Requirements: 10 quarter credits of English composition

Clark College equivalents: ENGL&101 (5 cr.)
ENGL&102 (5 cr.)

Notes: ENGL&102 is REQUIRED at Northwest University and Walla Walla University.

Generic DTA Requirements: 2. Quantitative/Symbolic Reasoning Requirement (5 credits)
Intermediate algebra proficiency is required.

MRP Requirements: 5 quarter credits statistics (a course that includes descriptive and inferential statistics)
Intermediate algebra proficiency is required.

Clark College equivalents: MATH 203 (3 cr.)
MATH 204 (3 cr.)
OR
BUS 203 (3 cr.)
BUS 204 (3 cr.)

Notes: UW Seattle and Seattle University require 10 credits in quantitative/symbolic reasoning with the additional class in college algebra or pre-calculus (at UW Seattle, a class in Logic also serves for the additional class). Students should make sure that the receiving institution will accept the business statistics sequence prior to starting.

B. Distribution Requirements

Generic DTA Requirements: 1. Humanities (15 credits)

MRP Requirements: 5 quarter credits of Public Speaking
10 quarter credits of other Humanities
Consistent with the requirements in all DTA degrees – no more than 10 credits per discipline area, 5 credits maximum in world languages or ASL. No more than 5 credits of performance/skills classes are allowed.

Clark College equivalents: CMST&220 (5 cr.)—Fulfills oral communication requirement.
10 quarter credits of other Humanities, 5 of which can be CMST.

Notes: In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their nursing curriculum.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). Credits in the humanities distribution area provide one opportunity for such a curriculum. See the humanities choices in the WSU “Diversity Course Identification Guidelines” for possible selection or choose courses that include minority, non-Western, ethnic or other “area” studies.

Generic DTA Requirements: 2. Social Sciences (15 credits)

MRP Requirements:

- 5 quarter credits, Introduction to Psychology
- 5 quarter credits, Human Development across the Life span
- 5 credits from the Sociology discipline

Clark College equivalents: PSYC&100 (5 cr.)
PSYC&200 (5 cr.)
5 credits in Sociology

Notes: Northwest University requires Cultural Anthropology and does not accept a course in the sociology discipline as a substitute. Students may be admitted to the BSN without Cultural Anthropology if they agree to complete the course at NU in the summer prior to the junior year.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The credits in sociology provide one opportunity for such a curriculum. See the sociology choices in the WSU “Diversity Course Identification Guidelines” for possible selection or choose courses that include minority, non-Western, ethnic or other “area” studies.

Generic DTA Requirements: 3. Natural Sciences

MRP Requirements: 35 credits with at least 25 credits lab-based:

- 5 quarter credits General Biology, the course prerequisite to Anatomy/Physiology
- 10 quarter credits Anatomy and Physiology with lab
- 5 quarter credits Inorganic Chemistry with lab
- 5 quarter credits Organic/Biochemistry with lab (when Organic + Biochemistry are separate courses, both are required)
- 5 quarter credits Microbiology with lab
- 5 quarter credits Human Nutrition

Clark College equivalents: BIOL&100 or BIOL164/165 (5 cr.)

(164/165 preferred)

BIOL&100 (5 cr.)

BIOL&251 (5 cr.)

BIOL&252 (5 cr.)

BIOL&253 (5 cr.)

BIOL&260 (5 cr.)

CHEM&121 (5 cr.)

CHEM&131 (5 cr.)

NUTR103 (3 cr.)*

*Students need to be aware that Clark College’s nutrition class is only three (3) credits, and not the required five (5) credits.

Notes: Introductory survey courses or review courses do not meet the content level expectations for these natural science requirements.

Northwest University requires 2 credits of Genetics as well. Students may be admitted to the BSN without Genetics if they agree to complete the course at NU in the summer prior to the junior year.

At the time of application when some of the coursework may not yet be completed, UW Seattle requires a minimum GPA of 3.0 for 3 out of the 7 courses or 2.8 for 4 out of the 7.

C. Electives

Generic DTA Requirements: Elective courses

MRP Requirements: Up to 10 additional quarter credits of which a maximum of 5 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution.

Clark College equivalents: Up to 10 additional quarter credits of which a maximum of 5 credits may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution. Students need to consult with the transfer institution to determine which course is “fully transferable.”

Notes: See notes under humanities, social science and natural science.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The elective credits provide one opportunity for such a curriculum. See the choices in the WSU “Diversity Course Identification Guidelines” for possible course selection or select courses that include minority, non-Western, ethnic or other “area” studies.