Clark College Catalog

2016-2017

Vision

Clark College inspires learners to excel, transforms lives, and strengthens our increasingly diverse community.

Mission

Clark College, in service to the community, guides individuals to achieve their educational and professional goals.

Core Themes

Academic Excellence: Facilitate student learning by providing the conditions for intellectual growth through scholarship, discovery, application, creativity, and critical thinking.

- Implement and institutionalize practices that increase academic performance, retention, and completion.
- Create and sustain an inclusive and dynamic curriculum and environment that reflect our diverse college community.
- Integrate active learning strategies within and across courses, disciplines, and programs with a global perspective.
- Create and advance accessible, integrated, and technology-enriched learning environments.
- Engage faculty, administrators, and staff in professional development experiences that enhance student learning.
- Align curriculum with learning outcomes and apply outcomes assessment evidence to continually advance student learning.

Social Equity: Facilitate student learning by providing the conditions that improve educational outcomes and eliminate systemic disparities among all groups.

- Create and sustain an accessible and inclusive environment by utilizing principles of universal design and social justice so that all students can achieve equitable outcomes.
- Demonstrate improved intercultural competency among employees and students through comprehensive professional development and curricular transformation.
- Institutionalize hiring and retention practices that challenge systems of power, privilege, and inequity.
- Economic Vitality: Facilitate student learning by providing programs, services, and conditions that improve the economic well-being of the students, college, and community.

Improve college affordability for students by expanding access to and information about financial resources, clarifying career and educational goals, providing pathways to success, improving college readiness, increasing financial literacy, and managing costs.

- Align program offerings with regional workforce needs to include technical and work-readiness skills.
- Align, expand, and enrich the relationships with regional industry leaders to increase internships, advisory committee participation, financial support for students' education and programs, hiring pipelines, grant partnerships, mentorships, and apprenticeships.
- Maximize the college's return on investment by responsibly allocating available resources.
- Leverage resources to create and sustain future innovations.

Environmental Integrity: Facilitate student learning by providing the conditions that continually improve the college's physical, virtual, and social environment.

- Incorporate environmental sustainability priorities into all college systems.
- Improve the college's physical and virtual environment to maximize access and appropriate use of space and technology.
- Integrate principles of mutual respect, collaboration, clear communication, and inclusivity in all interactions.

Values

Social Justice – Institutional commitment to produce equitable outcomes and challenge systems of power, privilege, and inequity.

Partnerships – Collaboration with individuals, organizations, and businesses to increase student success and improve the community.

Innovation – Development and implementation of creative and agile strategies to enhance student learning and respond to market needs.

Sustainability – Effective and efficient stewardship of all college resources.

Continuous Improvement – Evaluation and enhancement of all college operations based on data-informed planning and resource allocation.

Shared Governance – Clear communication, inclusive consultation, and respectful consideration of multiple perspectives guide decision-making throughout the college.

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

Disclaimer

Clark College has made reasonable efforts to ensure the accuracy of the information throughout this catalog. However, the college reserves the right to make appropriate changes in procedures, policies, calendars, requirements, programs, courses, and fees. When feasible, changes will be announced prior to their effective dates, but the college assumes no responsibility for giving any particular notice of any such changes. Changes may apply not only to prospective students, but also to those who are currently enrolled. nothing contained in this website shall be construed to create any offer to contract or any contractual rights.

We encourage readers to contact the college or appropriate office to obtain current information.

Section A:
Enrollment, Aid and College Life

SECTION A: Enrollment, Aid and College Life

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SECTION A: Enrollment, Aid and College Life

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Enrollment Services 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, student orientation, and referral to other services and programs.

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 Admission (Underage Policy) section 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 under Health Occupations Programs.

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

New Student Admission

Students with no previous college experience must complete an admissions application and pay a non-refundable application fee. New students are also required to participate in Student Orientation before they are allowed to register for classes. For more information on orientation, refer to the Student Orientation section.

Running Start Admission 360-992-2366

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

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 participate in orientation before they may register for classes.

If a student intends to use previously earned credits toward a program at Clark College, an official transcript of their college records must be sent to Enrollment Services 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.

Returning Student Admission

Students who are returning to Clark College after an absence of four (4) or more terms must provide an updated application for admission prior to registration.

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 must be sent to Enrollment Services. All admission materials become the property of the college and will not be returned to the student or forwarded to another institution.

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 an F-1 student visa.

To be eligible for admission, applicants must submit the international student application form, application fee, and supplemental documents. International student admission information can be found on the International Programs web page: www.clark.edu/international.

Applicants must submit financial documentation 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 term.

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
- Phlebotomy
- Pharmacy Technician
- Medical Assistant
- Nursing

Refer to the Clark College website at www.clark.edu or the Programs section 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 (Underage Policy)

Clark College admits anyone who is at least 18 years of age, who is a graduate of an accredited high school or the equivalent, is a participant in Running Start, or participant in other approved programs designed for age-specific groups. Exceptions to this policy may be granted by the college for special consideration of underage individuals not participating in one of the above-mentioned programs. The college reserves the ultimate right to determine admission to the college and/or to enroll in certain classes.

Deadlines

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/enroll/registration/dates/index.php.

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 term, 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 term.

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 term.

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 term.

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 term. 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 term 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 term. 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/enroll/admissions/admission_forms.php or by visiting the Welcome Center in Gaiser Hall room 127.

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: Used 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 Enrollment Services at 360-992-2107 with any questions regarding your residency status or how to apply for a reclassification. You can also visit our office in the Welcome Center, located in room 127 of Gaiser Hall.

HB 1079 (Undocumented Person) Waiver

Effective July 1, 2003, Washington state law (HB1079) was changed to qualify certain students who are not permanent residents or citizens of the United States as 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 their 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.

Enrollment Services

- Clark College employee
- Classified state employee or Washington Public Higher Education employee
- Senior Citizen Gold Card
- Children of deceased law enforcement officer or firefighter
- Children and spouse of totally disabled, or POW/MIA, or deceased eligible veterans, or National Guard members
- Native American Waiver
- Washington Non-Resident Waiver
- Oregon Border County Waiver
- Non-Resident Refugee Waiver
- Apprentice
- Vocational 18+ credits
- Dislocated forest products workers or their unemployed spouses
- Wrongfully convicted individual, their children and stepchildren

High School Completion Office

- High school completion

Veterans Affairs Office

- Military personnel

Running Start Office

- Running Start

Course Placement

360-992-2648

Clark College will be transitioning from COMPASS testing placement during the 2016-2017 academic year. Please visit www.clark.edu/assessment to determine which option may best fit your placement requirements.

Course placement is an important step toward student success. Prior to accessing placement services, students must complete an application for admission and pay the admission application fee. Clark College utilizes a variety of course placement methods including COMPASS, CASAS, placement results from other institutions in Washington, high school coursework, and other options. Please visit www.clark.edu/assessment to determine which option may best fit your placement requirements.

Placement Testing Retest Policy

All students are allowed an initial COMPASS placement test at no additional cost. COMPASS and ASSET scores are accepted and considered valid for two (2) years from the placement test date. After receiving the results, students have the following options:

1. Enroll in the courses into which they were placed.
2. Retest in any or all of the three (3) modules (writing, reading, or mathematics). 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 have the right to retest periodically. Individual modules may be taken once every three (3) months. Each module retest requires a separate fee. Once a letter grade is received, a student may not retest without the explicit permission of the Dean of that area. COMPASS and ASSET scores are considered valid for two (2) years from the placement test date.

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/enroll/admissions/assessment/proctoring.php 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 Spanish language. 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.

High School 21+ 360-992-2741

Begun in 2015, High School 21+ is a program that helps students 21 years or older earn their high school diplomas in a more timely and convenient way than was previously available. The High School 21+ curriculum combines basic skills coursework with more rigorous academic education and training so that students can upgrade their skills while working toward a high school credential. The coursework is listed in the schedule as College and Academic Preparation (CAP). CAP is designed both to help students earn their high school diploma and/or prepare for the GED exam. In addition, the coursework can help students who have already completed high school or the GED but who need to improve their academic skills before entering into their program of study at Clark College.

Adults interested in participating in the High School 21+ program will need to apply for admission, submit their official high school transcripts, take the CASAS test, and meet with the High School Completion Advisor prior to beginning their classes. While adults aged 19 and older are welcome to enroll in the program, diplomas will be issued only to adults aged 21 and over.

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.

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 four (4) subject areas:

- Social Studies
- Mathematics
- Science
- Language Arts

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

The GED test is now offered in a computer-based format. In order to begin the process of obtaining a GED, participants may register online at www.GEDcomputer.com. The GED test must still be taken in person at an official

GED testing center. Examinees under the age of 19 must provide a high school release form to the Assessment Center to enable the online scheduling feature.

GED preparation classes are available through Clark College. Contact 360-992-2107 for further information.

Student Orientation

All new, transfer and returning students are required to complete a 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. For specific orientation requirements visit www.clark.edu/enroll/admissions/orientation/index.php

Financial Aid

360-992-2153

www.clark.edu/cc/finaid

The Financial Aid Office helps eligible degree and certificate seeking students obtain funding to meet their educational expenses at Clark College. Last year more than 6,000 students were awarded over $45 million in federal, state, and institutional financial aid.

Types of Financial Aid Available

Financial aid includes grants, tuition waivers, work study, and student loans. The financial aid programs available to students at Clark College include:

Federal Pell Grant: Awarded based on financial need. Students may receive the Pell Grant for a maximum of three (3) full-time (12 credits or more) terms per academic year. The grant is prorated for less than full-time enrollment. Eligibility is limited to a lifetime maximum of 18 full-time terms.

Federal Supplemental Educational Opportunity Grant: Awarded based on exceptional financial need. The grant is available to students enrolled in six (6) credits or more per term.

Washington State Need Grant: Awarded to eligible Washington State residents up to the cost of tuition. The grant is prorated for less than full-time enrollment. Students may also receive funding to cover a small portion of child care expenses. Students who have earned an AA or AAS/AAT/AFA degree in the past five (5) years are not eligible to receive the State Need Grant.

College Bound Scholarship: Awarded in combination with other state financial aid to cover the average cost of tuition, fees, and a partial book allowance. The scholarship is available to students who sign up in the seventh or eighth grade and meet specific eligibility requirements. Information is available online at www.wsac.wa.gov.

Clark College Grants and Waivers Clark College reserves a percentage of tuition revenue and offers these funds to Washington resident students in the form of institutional grants and tuition waivers. Clark College offers the following institutional grants and waivers:

Clark College Grant: Awarded to eligible Washington State residents based on financial need. The grant is available to students enrolled in three (3) credits or more per term.

Clark College Need-Based Tuition Waiver: Awarded to eligible Washington State residents based on financial need to reduce the amount of tuition costs. The waiver is available to students enrolled in three (3) credits or more per term.

Clark College Non-Need Based Tuition Waiver: May be awarded to Washington State residents and non-residents with unusual circumstances who do not have sufficient resources to pay the cost of tuition. Eligibility is determined on a case-by-case basis by the Financial Aid Director and the Director's designees.

Federal and State Work Study: Awarded to Washington State residents based on financial need. Funds are earned through employment on and off campus. Students must be enrolled in at least six (6) credits per term.

Federal Student Loans: Federal Direct loans are borrowed funds that students must repay with interest. A federal student loan allows students to borrow money to help pay for college through loan programs supported by the federal government. They have low interest rates and offer flexible repayment terms, benefits, and options. All students must first complete the Free Application for Federal Student Aid (FAFSA). If you are eligible for a loan, an offer will be included on your award letter.

There are two types of federal student loans: subsidized and unsubsidized. Students that are eligible for a subsidized loan are not charged interest while they remain in school. Interest starts accruing on subsidized loans after a student leaves school. With an unsubsidized loan, interest starts accruing at the time loan funds are disbursed. Students can choose to make interest payments while in school or delay interest payments until after they leave school.

Students who receive their first federal student loan after June 30, 2013, are limited on the maximum period of time they can receive Direct Subsidized Loans. In general, students may only receive Direct Subsidized Loans up to 150% of the published length of their program. This is called the "maximum eligibility period." The Department of Education will determine loan usage and the maximum eligibility based on the length of program, measured in months. For example, a one (1) year certificate is nine (9) months in length and a two (2) year degree is eighteen (18) months in length. Eligibility for subsidized loans will be lost if a student does not complete the program or enrolls in another program of equal or shorter length.

New students receiving a loan for the first time will receive their first loan disbursement on the 31st day of the term. If the disbursement date falls on a weekend or holiday, the disbursement will be available on the following business day. All students receiving a loan for a single term will receive their disbursements in two installments. Previous borrowers will receive the first disbursement at the beginning of the term; new borrowers will receive the first disbursement on the 31st day and the second disbursement at the mid-point of the term. If the disbursement dates fall on a weekend or holiday, the disbursement will be available on the following business day. Students must be enrolled in six (6) credits or more at the time of each disbursement.

Application Process

The annual application process begins by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov. The FAFSA is available in January each year. Completing the FAFSA is the first step of the application process. Additional documents will be requested by the Financial Aid Office via student email. A student's financial aid file is considered complete and ready for processing when all requested documents are received by the Financial Aid Office. For priority processing, students planning to attend summer and/or fall term 2016 should complete their financial aid file by May 18. Priority processing dates for winter and spring 2017 will be published online at www.clark.edu/cc/finaid.

Washington Application for State Financial Aid (WASFA)

Eligibility for Washington State financial aid has been expanded to include students who are ineligible for federal financial aid due to immigration status. DREAMers should complete the WASFA online at www.readysetgrad.org/WASFA. Students who qualify may be eligible for state grant aid and work study.

Financial Aid Awards and Disbursements

The Clark College Financial Aid Office processes the student's financial aid file and determines eligibility for grants, work study, and loans. Students are notified of their eligibility with an award letter sent to their student email account. All grants and tuition waivers included on the award letter are based on full-time (12 credits or more) enrollment. Grants and tuition waivers are prorated down prior to the start of the term for less than full-time enrollment. Loans included on the award letter are estimates.

All financial aid awards are automatically used to pay tuition and fees. If the financial aid award is not sufficient to pay tuition and fees in full, the student is responsible for payment of any remaining balance. If the financial aid award exceeds the cost of tuition and fees, the student will receive a disbursement. With the exception of summer term, financial aid disbursements are issued the first week of the term. To avoid delays in financial aid disbursements, students should finalize their academic schedule at least one week before the start of the term.

Customers Bank Refund Selection Kit

Through a partnership with Customers Bank, Refund Selection Kits are issued to all Clark College students who apply for financial aid. The kits are mailed by Customer Bank to students after they complete their financial aid file. Students should visit www.clarkdebitcard.com after receiving their kit to choose how they wish to receive their quarterly financial aid disbursements. Students can choose to have their disbursements deposited into an existing bank account, directly deposited into a Bank Mobile Vibe account offered by Customers Bank, or mailed as a paper check. Additional information about the Customers Bank Refund Selection Kit is available online at www.clark.edu/cc/finaid.

Census Date

A student's enrollment level for the term is established at the time funds are sent to Customers Bank for disbursement. On the census date (the fifth day of the term), the student's enrollment level is finalized and compared to the enrollment level at the time of disbursement. No funding adjustments can be made after the census date.

If a student has added classes during the first five days of the term and is entitled to additional funds, the Financial Aid Office will recalculate the student's Pell Grant award and disburse the additional funds to the student's Customers Bank option. Students who are eligible to receive additional funds will receive a revised award letter from the Financial Aid Office and notification of disbursement from Customers Bank.

A student who has dropped to a lower enrollment level during the first five days of the term may owe a repayment of Pell Grant funds received. The Financial Aid Office will recalculate the student's Pell Grant award and bill the student for an overpayment of funds received. Tuition refunds resulting from a drop in credits will be applied to the Pell Grant overpayment to reduce the amount that must be repaid. Students in overpayment status will receive a bill by the end of the third week of the term via email at their student address.

Students will be held responsible for their original enrollment level at the time of financial aid disbursement and may face financial aid warning or suspension, according to the Satisfactory Academic Progress Policy www.clark.edu/enroll/paying-for-college/get-keep/index.php.

Module Classes

Any class that begins after the official term start date and/or ends before the official term end date is a module class. Credits for these classes are included in a student's enrollment level at the time of financial aid disbursement.

A repayment of Pell Grant funds received may be required if a student does not commence attendance or drops a late start or module class prior to its start date. The Financial Aid Office will recalculate the student's Pell Grant award and bill the student for an overpayment of funds received. Tuition refunds resulting from the drop in credits will be applied to the Pell Grant overpayment to reduce the amount that must be repaid.

Students will be held responsible for the original enrollment level at the time of financial aid disbursement and may face financial aid warning or suspension, according to the Satisfactory Academic Progress Policy www.clark.edu/enroll/paying-for-college/get-keep/index.php.

Pell Grant Overpayments

Students who owe a Pell Grant overpayment will have 45 days to repay their debt in full or make payment arrangements with Clark College. After 45 days the debt will be referred to ED Debt Resolution Services (https://www.myeddebt.ed.gov/) if a student has not repaid the debt in full or made payment arrangements. Students whose debt

has been referred are no longer eligible for financial aid, including grants, loans, and work study. The full Clark College Census Date policy is available at www.clark.edu/enroll/paying-for-college/documents/Census_Date_Disbursement_Policy.pdf.

Financial Aid Satisfactory Academic Progress

Students must meet Financial Aid Satisfactory Academic Progress (SAP) policy requirements to remain eligible for federal, state, and institutional financial aid.

There are three standards of Satisfactory Academic Progress that are evaluated at the end of each term:

I. Grade Point Average (GPA) If both the term and cumulative GPA fall below 2.0, the student will not have met the GPA requirement to remain in good standing. In addition, a student must have a minimum 2.0 cumulative GPA at the end of their sixth term.

II. Maximum Timeframe is measured to ensure students are taking required courses to complete their certificate or degree. Eligibility for federal aid expires once a student attempts 150% of the published credits required for a program. Maximum credit warning notifications will be issued when a student reaches 110% of the credits required for a degree or 100% for a certificate. Once a student has attempted 125% of program credits, financial aid will be suspended until an internal review of program progression has been completed. All credits, regardless of whether they were taken while on financial aid, or credits removed with an approved set-aside petition, are used in calculating maximum timeframe. Transfer credits accepted for use towards the current certificate or degree are included. Remedial coursework needed to reach program required classes is counted towards maximum timeframe. Funding of remedial courses is limited to 45 attempted credits. Repeated credits (R grades) are counted as attempted towards maximum timeframe. Once a class has been attempted and credit has been earned, financial aid can only pay for a second attempt. Clark College Financial Aid has the right to request additional documentation at the time of file review. Students that have used 400% or greater of their lifetime Pell eligibility, borrowed $30,000 or more in student loans and/or attended four (4) or more institutions will be required to submit official transcripts from prior institution(s) for credential evaluation in addition to a Maximum Credit Appeal to determine future financial aid eligibility.

III. Pace of Progression Students must complete all financial aid eligible credits funded each term within their enrollment level and 67% of their attempted cumulative credits. Pace of progress that is 66.6% or higher will be rounded to 67%. All program credits, including transfer and remedial credits, will be taken into consideration whether or not aid was received. Grades F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress), N (audit), and R (repeat) will count as attempted credits.

Registered Credits at

Time of Disbursement	Good Standing
Full Time (12 -19 credits)	12 credits per term
3/4 Time (9-11 credits)	9 credits per term
1/2 Time (6-8 credits)	6 credits per term
Less Than 1/2 Time (1-5 credits)	All attempted credits per term

Financial Aid Warning Status

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

- Term and cumulative GPA fall below 2.0 at the end of a term, and/or
- Pace of progression is less than 67%, and/or
- Not all attempted credits are completed (as noted on the chart)

Time of Disbursement	Warning	Suspension
Full Time (12 -19 credits)	6 - 11 credits	5 credits or fewer
3/4 Time (9-11 credits)	6 - 8 credits	5 credits per term
1/2 Time (6-8 credits)	N/A	5 credits per term
Less Than 1/2 Time (1-5 credits)	N/A	Less than all per term attempted credits

Students on Warning are eligible to receive financial aid the next term of attendance, but are in jeopardy of losing their financial aid eligibility. If all Satisfactory Academic requirements are not met at the end of the next term of attendance, financial aid will be suspended. Warning status will be cleared if all Satisfactory Academic Progress requirements are met at the end of the next term of attendance.

Financial Aid Suspension

Students on financial aid suspension are not eligible for future financial aid including grants, work study, and loans. Immediate financial aid suspension will occur when a student:

- Is on Financial Aid Warning/Probation and:
  - Does not complete the number of credits in their enrollment level, and/or
  - Do not meet 67% pace of progression, and/or
  - Both the term and cumulative GPA fall below 2.0 at the end of the term
- Has a cumulative GPA below 2.0 at the end of the sixth (6th) term
- Has attempted 125% of the credits required for the program
- Has changed their degree more than two times
- Has failed to meet the requirements of an Educational Plan agreement
- Has not completed all attempted credits (as noted on the enrollment chart)

Time of Disbursement	Suspension
Full Time (12 -19 credits)	5 credits or fewer
3/4 Time (9-11 credits)	5 credits per term
1/2 Time (6-8 credits)	5 credits per term
Less Than 1/2 Time (1-5 credits)	Less than all per term attempted credits

Regaining Financial Aid Eligibility

When students lose financial aid due to lack of academic progress, there are two (2) options to regain eligibility. The options are:

I. Satisfactory Academic Progress Appeal: Failure to maintain good academic standing may be the result of circumstances beyond the student's control. In cases of student illness, injury, a death in the family or unusual circumstances, students may appeal to regain financial aid eligibility. **Students are limited to two (2) appeals at Clark College.**

Appeals must include the following:

1. Satisfactory Academic Progress Appeal Form.

2. Typed and signed statement explaining the circumstances AND what has changed AND the steps taken to ensure academic success in the future.

3. Supporting documentation confirming the extenuating circumstances presented in the statement.

4. A current degree worksheet completed and signed by the student and program advisor.

Appeals are reviewed by the Financial Aid Advisory Committee bimonthly and students are notified of their decision through student email. The Committee's decision is final. If the appeal is approved, the Committee has the authority to restrict students to specific academic conditions. The student may be required to follow an education plan until satisfactory academic progress is achieved.

If approved, aid is reactivated based on available funding at the time the appeal is approved and may not reflect the original award. An approved appeal does not negate any repayment owed to the financial aid programs or Clark College.

II. Request for Reinstatement: If a student chooses not to appeal or has exhausted the two (2) appeal limit, they may submit a Request for Reinstatement when they have met all of the following conditions:

1. Cumulative GPA is 2.0 or higher AND

2. Enrolled in and completed a minimum of five (5) program required credits (CAP courses are ineligible) AND

3. Pace of progression is 67% or higher

When attempting to reinstate, all credits in the reinstatement term must be completed. Grades of F (Failed), U (Unsatisfactory), W (Withdraw), Y (In Progress), N (Audit), and R (Repeat) will hinder eligibility for reinstatement and may increase the number of credits needed to reinstate.

If the reinstatement is approved, aid is reactivated based on available funding at the time the reinstatement is approved and may not reflect the original award. Students may be restricted to specific academic conditions and must remain in good academic standing to receive continued funding. An approved reinstatement does not negate any repayment owed to the financial aid programs or Clark College.

Financial Aid Probation

If the Financial Aid Advisory Committee approves a student's appeal, financial aid will be reactivated on a probationary status. Financial aid suspension will occur if the student does not meet all the satisfactory academic progress requirements at the end of the next term of attendance (see warning section for details).

Other Requirements and Limitations

Maximum Timeframe: Financial aid can fund up to 125% of the required credits to complete a certificate or degree. All credits, regardless of whether they were taken while on financial aid, or credits removed with an approved set-aside petition, are used in calculating maximum timeframe. Transfer credits accepted for use towards the current certificate or degree are included. Remedial coursework needed to reach program required classes is counted towards maximum timeframe. Funding for remedial courses is limited to 45 attempted credits. Repeated credits (R grades) are counted as attempted towards maximum timeframe. Once a class has been attempted and credit has been earned, financial aid can only pay for a second attempt.

Program Changes: Students are allowed to change their program of study up to two (2) times. Pace of progression and maximum timeframe are reset with each program change. If a student was approved in a previous appeal with specific academic conditions, those conditions must be met before changing their program. If a student would like to change their program without meeting the appeal's academic conditions, a student must submit a Request for Financial Aid Extension to the Financial Aid Office. If the program change is approved, new conditions will be applied. Once a student has completed two (2) degrees at Clark College they are no longer eligible for financial aid.

Title IV Repayment Policy

Students who receive financial aid are subject to the Federal Return of Title IV Policy. This policy is effective when a student withdraws or fails all credits. Students who attend through the 60% point of the term earn 100% of their aid and will not owe a repayment. Students who do not attend through the 60% point in the term 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. Supplemental Educational Opportunity Grants

Other Federal, State, Private, or Institutional financial assistance

There are six (6) 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 the 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 from tuition payments and repayment owed by the student.
6. Calculate portion of funds to be returned by the institution and student.

Both Clark College and the student have specific responsibilities under this policy. If the student does not attend through the 60% point of the term, the college and the student may be required to return a portion of aid to the Federal Government. Funds returned by Clark College will become student debt owed to the College. Funds received by the student directly will become student debt owed to the Federal Government. Clark College will provide guidance and repayment options. Students will have 45 days to pay their debt in full or make arrangements to pay their debt. If, within 45 days, the student fails to pay in full or make arrangements to pay, the debt will be referred to ED Debt Resolution Services (www.myeddebt.com/borrower/). Students who fail to comply with the terms of their agreement to repay will immediately become ineligible for Title IV funds.

Requirements of 34 CFR 668.22 are available in the Clark College Financial Aid Office or on the Clark College website at www.clark.edu/enroll/paying-for-college/get-keep/refund_policy.php.

State Need Grant Repayment Policy

Students receiving a State Need Grant (SNG) are subject to the Washington State Need Grant repayment policy as defined by the Washington Student Achievement Council (WSAC). This policy is effective only if a student com-

pletely terminates enrollment by withdrawing or failing all credits. Students who remain enrolled through at least 50% of the term will not owe a repayment. Students who officially or unofficially withdraw before the 50% point of the term 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 50% of a State Need Grant considered unearned. Repayments of a State Need Grant are considered a student debt owed to Clark College. Any unpaid debt will be referred to WSAC at the end of the academic year (June 30). Students who owe a repayment are not eligible for a Washington State Need Grant until the repayment has been paid in full.

Other Educational Resources Available

Scholarships

360-992-2582

www.clark.edu/enroll/paying-for-college/scholarships/index.php

Funding for scholarships is made possible through the generous support of individuals and organizations. The Clark College Foundation is one of the largest community college foundations in the country and offers many scholarships to Clark College students each year.

Individual scholarships may have their own eligibility criteria where a student must maintain a certain GPA or enrollment level to qualify for funds awarded. Students should refer to their scholarship award letter for the conditions of their award. The scholarship application is separate from the application for financial aid.

The majority of scholarship applications are available January through April, and funds are awarded for the following academic year.

Sponsored Programs

360-992-2307

The Sponsored Programs office serves as a liaison between students and various governmental and community agencies that have authorized funding to pay for tuition, books, and supplies.

Workforce Education Services

Clark College Workforce Education Services administers a variety of programs designed to support students who are pursuing vocational or technical non-transfer degree programs and certificate programs. Students enrolled in Adult Basic Education, English as a Second Language, and General Education Development classes may also be eligible. Resources available include:

Opportunity Grant

360-992-2039

The Opportunity Grant program serves low-income students who are pursuing professional/technical programs that lead to high-wage, high-demand jobs. Eligible students must be Washington State residents, meet income guidelines, and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

Worker Retraining

360-992-2274

The Worker Retraining program serves students who have experienced unemployment, who are displaced homemakers, or have been discharged from the military, and are pursuing professional/technical programs that provide them with the ability to re-enter the workforce. Eligible students must live in Washington State and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

WorkFirst Financial Aid and Work Study

360-992-2915

The WorkFirst program serves students who are receiving Temporary Assistance for Needy Families (TANF) and are pursuing professional/technical programs. Eligible students must live in Washington State and be enrolled in an ap-

proved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

On-campus WorkFirst Work Study job opportunities may also be available for those who qualify.

Basic Food Employment and Training (BFET) 360-992-2038

The BFET program serves students who are receiving federal basic food benefits and are pursuing professional/technical programs. Eligible students must live in Washington State and be enrolled in an approved program. Students may be eligible to receive subsidized child care assistance through Working Connections/Department of Social and Health Services (DSHS). Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

Veteran Education Resources 360-992-2711 or 360-992-2112

Certifying officials located in the Veterans Resource Center (VRC) serve as a liaison between Clark College and the U.S. Department of Veterans Affairs. Clark College is approved for VA Education Benefits under Chapters 30, 31, 32, 33, 35, 1606, 1607, and Military Tuition Assistance (TA).

Eligible veterans and dependents must request certification by term for approved degree and certificate programs. Only courses required within the program will be funded. Audited courses are not eligible. Students are required to make satisfactory academic progress and should contact the Veterans Affairs Office prior to making any schedule changes. Visit www.clark.edu/enroll/paying-for-college/VA/VA_CEBVA.pdf for a complete checklist of requirements.

Clark College joins with the Department of Defense (DOD) Voluntary Education Partnership Memorandum of Understanding (MOU) and conforms to Executive Order 13607 of April 27, 2012, establishing Principles of Excellence for Educational Institutions Serving Service Members, Veteran Spouses, and other family members. Credit for military experience may be granted toward general elective and specific vocational program coursework. Veterans are required to submit military and all other school transcripts, to be applied toward their intended program of study, no later than the start of their second term of enrollment. Military training and experience granted for credit recommendations are based on the American Council of Education (ACE) guidelines for military training. Military experience is a non-traditional credit program. Students should refer to the Non-Traditional Credit Policy section of this catalog and contact the Veterans Affairs Office for additional information.

Career Services 360-992-2902

www.clark.edu/cc/careerservices

Online job database system: www.clark.edu/cc/penguinjobs

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, Penguin Jobs, on the Career Services website: www.clark.edu/cc/penguinjobs.
- 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.

Financial literacy:

- One-on-one appointments for free financial coaching.
- Free financial management tool for students: https://www.saltmoney.org/index.html.
- Money-themed student success workshops.

Employer services:

- Free on-campus recruiting table.
- 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.

Cooperative 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 an applicable credit option and is subject to the guidelines listed under the Other Applicable Credit Options section in this catalog.

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, in collaboration with faculty, will 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 degree and certificate students to Clark and at certain checkpoints during the 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

360-992-2654 or 877-748-2654
eLearning@clark.edu
www.clark.edu/eLearning

What is eLearning?

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

What types of classes are offered?

eLearning classes are offered in the following formats: online, hybrid, and weekend hybrid. To learn more about eLearning class formats, please go to www.clark.edu/eLearning/whatis.php. General class descriptions are as follows:

- Online – A course that uses web-based tools and where 100% of the instruction and interaction between instructor and student is done online.
- Hybrid – A course that displaces some, but not all face-to-face class time with web-based tools.
- Web Enhanced – A face-to-face course that does not replace any face-to-face seat time, and access to web-based tools is required.

What types of programs are offered?

Through the eLearning class formats, students have several options to complete a degree through Clark College eLearning:

- Associate in Arts General Transfer degree (AA DTA): In a combination of formats including online, hybrid, and weekend hybrid.
- Business Administration DTA/MRP: In a combination of formats including online, hybrid, and weekend hybrid.

How do I start an eLearning class?

eLearning classes follow the same college 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 term for class instruction.

Please visit the eLearning Getting Started page at www.clark.edu/academics/eLearning/begin.php for information about starting an eLearning class.

Technical Requirements and Support

To see if you have appropriate technology for eLearning courses go to: www.clark.edu/academics/eLearning/tech_reqs.php.

Technical support is available through the TechHub for:

- LMS login and troubleshooting
- Computer lab and student wireless login and troubleshooting
- Mobile device connectivity
- Course-specific software and e-books
- eTutoring login
- Online student services
- Computer usage and troubleshooting
- Student Gmail

For further information about TechHub, please visit: library.clark.edu/?q=content/techhub.

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 Enrollment Services, located in Gaiser Hall. If you are a new or transfer student, you will be emailed information regarding orientation, meeting with an advisor, and registering for classes after completing an application for admission and submitting it to Enrollment Services.

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

Continuing student registration access dates/times are based on cumulative credits earned.

Priority registration access is given to eligible veterans under HB 1109. Qualifying students will receive access to registration services approximately one week prior to the continuing student population. Students approved for registration accommodation due to disability will also register during this time period.

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

Online Registration Services

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

- Enrollment verification
- Online registration
- Unofficial transcripts
- Change of address
- Student global PIN change
- Waitlist inquiry
- Registration access date/time
- Student schedule
- Degree audit (online degree audit)

You may conveniently enroll online each term by taking advantage of online registration. You will need your SID (student identification number) and your global PIN. Printing your class schedule and changing your address, phone, or e-mail are other convenient options available online at www.clark.edu/current.

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 (3rd) day of the term, instructor permission is required to enroll into any regular starting class. Beginning the tenth (10th) day of the term (eighth day in summer), students are also 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: Late starting classes, section changes, and level changes.

Students who register after the tenth (10th) day of the term (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 term.
- 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 Week 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, which will direct the student appropriately. Students who fail to attend one (1) or more sessions during the first five (5) days of the term 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 term 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 Enrollment Services Office. The dates for dropping and/or withdrawing from classes are listed online.

- A class officially dropped before the tenth (10th) day (eighth day in summer) of the term will not be entered on the student's transcript.
- After the tenth (10th) day and through the eighth (8th) week of the term, regular starting classes formally dropped at the Enrollment Services 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 (8th) week of the term.
- 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.

Administrative Withdrawal

Students unable to withdraw by the end of the term due to extenuating circumstances should contact the Enrollment Services Office for information on requesting 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 Enrollment Services Office. Such changes may be made only with the written consent of the instructor and must be processed by the end of the tenth (10th) day of the term (eighth day in summer).

Student Attendance Status

Clark College considers students enrolled in twelve (12) or more credits to be full-time students. 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 MGIB GI Bill Chapters 30, 31, 35, 1606, 1607, 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 terms

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 term

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

Post 9/11 GI Bill Student Attendance Status

Post 9/11 GI Bill calculated at Rate of Pursuit. Students must be enrolled at more than half-time to receive their expected BAH.

- 12 credits or more is considered full-time training for Post 9/11 GI Bill for Fall, Winter, and Spring terms. (7 or more credits is required for BAH payment)
- 8 credits or more is considered full-time training for Post 9/11 GI Bill during Summer term only. (5 or more credits is required for BAH payment)

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.

A member of the Washington National Guard or any other military reserve component who misses any form of participation/attendance in a class due to being ordered to service for 30 days or less, or requiring medical treatment for that service, is entitled to make up academic assignments without prejudice to the final course grade or evaluation. Documentation must be submitted prior to absence. Contact the Veterans Affairs Office for information.

Change of Address

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 Enrollment Services Office and online at www.clark.edu.

Tuition and Fees

The first payment due date is four (4) weeks prior to the term start date. Students who register Saturday through Friday must pay tuition and fees on the following Monday by 5:00 p.m. If a holiday falls on Monday, payment is due that Tuesday by 5:00 p.m. Students who register after the tenth (10th) day of the term must pay tuition by the end of the business day. Students receiving financial aid, scholarship, agency, or veterans benefits are responsible for paying outstanding tuition and fees by the tuition due date when aid is insufficient to cover the total cost. The Business Office will send email notification to students who owe tuition and fees. The amount due is also listed on the student's registration schedule.

Students who do not pay tuition and fees will be dropped from their classes unless:

- The outstanding balance is $100 or less.
- A signed agreement to participate in the STEPP deferred payment plan has been submitted and payments are up to date.
- Registration for classes occurs after the tenth (10th) day of the term.

It is the responsibility of the student to officially withdraw from classes if they are unable to pay tuition and fees. A 100% refund will be issued through the fifth (5th) business day of each term.

Students with any outstanding debt owed to the college will:

- Be blocked from future registration.
- Be denied the request for official transcripts.
- Be sent to Collections and a collection fee will be added to any tuition and/or fees outstanding at the end of the term.

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.

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 the student's class preparation and participation. The store staff understands the financial impact of class materials, and 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 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 its 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, 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 Enrollment Services 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 is available online at www.clark.edu/enroll/registration/refund_policies.php.

Students who believe extenuating circumstances justify an exception to the policy may make a formal request at the Enrollment Services Office. Exceptions may be granted for extreme, extenuating, urgent, and unavoidable circum-

stances that prevent a student from withdrawing within the established guidelines. Students receiving Financial Aid may not qualify for exceptions to the refund policy due to federal financial aid guidelines.

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

Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. Courses completed with a grade of "D" or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or "C" is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

Grade Information

Students enrolled in credit classes may obtain grade information approximately eight (8) days after the end of each term. 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 term GPA is computed by adding the total number of grade points for the term 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 terms and dividing by the total number of credits attempted in the courses that received a letter grade.

Incomplete Grades

An incomplete grade may be given if the instructor is satisfied that unavoidable circumstances have prevented the student from completing the course work and the student has requested this option. Faculty must submit the Memorandum of Incomplete Work to Enrollment Services by the grading deadline.

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 Enrollment Services office.

Incomplete grades can also effect Financial Aid funding, please refer to the Satisfactory Progress Policy at www.clark.edu/enroll/paying-for-college/get-keep/index.php

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) term.

Pass/No Pass

Students may request to enroll in certain courses on a pass/no pass (PNP) basis. Students must contact the Enrollment Services Office for information about courses approved for this option. No more than sixty (60) 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

Some courses may be repeated to improve a grade earned, but credit will be granted only once. When students notify the Enrollment Services 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, and those courses may not be used to satisfy future course prerequisites.

Students may set aside a previous record if:

- They have earned fifteen (15) credits at Clark College beyond the term 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 Enrollment Services 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 their 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 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 Enrollment Services 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 Enrollment Services 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 term following the term 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, terms 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 Enrollment Services Office.

Transcripts

A transcript of each student's educational record is maintained in the Enrollment Services 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 Enrollment Services Office in Gaiser Hall.

Vice President's List

A Vice President's List will be compiled at the end of each academic term to recognize outstanding student achievement at Clark College. 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.

Credential Evaluations

The Credential Evaluations Department provides assistance for students seeking an evaluation of their progress towards completion. Evaluators will review and evaluate official transcripts sent to Clark College, process applications

for program completion, and respond to Credit for Prior Learning inquiries. For more detailed information about what Credential Evaluations is responsible for, please visit our website or call 360-992-2805.

Credential Evaluation Policies

Academic Standards Petition

Students who believe an error has been made, or who would like to request an exception to the established degree requirements should contact the Credential Evaluations Office to inquire about an Academic Standards Petition.

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).

Diplomas

Diplomas will be mailed 6-8 weeks following the completion of a student's degree or certificate requirements. Diplomas that are lost or misplaced may not be available for reprint. Contact the Credential Evaluations Office for more information.

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 term before they plan to complete all of their requirements. If students do not complete their degree or certificate requirements in the term of application, they must reapply.

The priority processing deadline for graduation applications is the tenth (10th) day of the term 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 term.

Graduation applications received after the priority deadline and through the eighth (8th) week of the term 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 term, provided all degree or certificate requirements have been fulfilled.

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

Credit for Prior Learning

Have you dreamed of completing a degree you started long ago? Is it overwhelming to consider beginning or returning to school after being out of the educational system for several years? The process may not be as difficult as you may think! You may be able to earn college credit for knowledge and skills you have gained from prior education and training, military experience, volunteer, and life and work experiences. Prior learning assessment is a process that enables individuals to demonstrate what they have learned–usually through life and work experiences–and have that learning assessed for college credit.

Granting college credit based on assessment of a student's prior learning in the workplace, military, or through other life experiences can have positive impacts on college affordability, institutional capacity, and student success. Legislation passed by the state of Washington requires Clark College to collaborate with the State Board of Community and Technical Colleges in supporting the state goals for credit for prior learning. Clark College is commit-

ted to fostering an educated and skilled workforce, which is essential for economic prosperity and meaningful work for the citizens in Clark's service area. Further, Clark College is dedicated to awarding credit for applicable learning experiences that can help more students complete their training and degree programs sooner by evaluating an individual's existing knowledge and competencies for college credit. Students may be assessed through various processes that will determine the degree to which you have met the learning outcomes of the content in question. This could be a test, written assessment, oral interview, project, performance, or another appropriate method by which the faculty member determines your understanding of the subject matter.

For more detailed information on Credit for Prior Learning please contact 360-992-2805.

Certification Crosswalk

Credit may be awarded for documented experiential learning outside the college upon the recommendation of appropriately qualified teaching faculty. Documentation may be in the form of, but not limited to, a licensure or certification document that demonstrates that learning outcomes have been accomplished.

College Level Examination Program (CLEP) 360-992-2805

Clark College awards credit for successful CLEP examinations. An up-to-date list of subjects and required scores can be found on ourwebsite page. To be considered for credit, a student must pass the examination with the equivalent of a "C" or better grade. The transcript will reflect the credit granted by listing the equivalent course number, title, and credits. Refer to the Other Applicable Credit Options section for further restrictions on the number of credits applicable toward specific programs. Not all institutions accept CLEP credits. Students intending to transfer to another institution should contact the transfer institution for information on their CLEP policy.

Procedure for Requesting CLEP Credits

Students should have an official copy of their CLEP scores sent to:

Clark College
Attn: Credential Evaluations/GHL108
1933 Fort Vancouver Way
Vancouver, WA 98663

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits to be awarded. CLEP credits are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

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

Course Challenge

Students who believe that previous experience has provided them with the competencies essential for passing a course may request to challenge that course. A course challenge process may be used when:

1. There is a specific Clark College course for which the student believes that the learning outcomes can be met, and

2. The course can be challenged (some courses may not be challengeable).

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 completed a course with a higher degree of difficulty. Courses that have been successfully challenged will be appear on the student's transcript with an "S" grade. There will be no transcript entry for an unsuccessful challenge. The successful challenge will appear on the student's transcript within the term earned and does not count toward the Clark College residency requirement. Students should check with the Credentials and Evaluation Office for the current application process and course challenge fee.

Military Experience 360-992-2711

Students can receive academic credits for experience and knowledge gained through military participation. Credits will be conferred based on ACE credit recommendations, in consultation with academic departments. Academic credit for military experience will be limited to 25 percent of total credits required for degree/certificate completion. Students should consult the Veterans Affairs Department to discuss applying military credits to their degree plan. The Credential Evaluations Department will evaluate all incoming military credits upon receipt.

Clark College meets the requirements of RCW 28B.10.057 by awarding academic credit for military training. The academic credit awarded for prior military training is granted only for training that is applicable to the student's degree or certificate requirements. The individual must be enrolled in Clark College and have successfully completed any military training course or program as part of the military service that is:

- Recommended for credit by a national higher education association that provides credit recommendations for military training programs;
- Included in the individual's military transcript issued by any branch of the armed services;
- Documented military training or experience that is substantially equivalent to any course or program offered by the institution of higher education.

Clark College enrolled students who are veterans of any branch of the United States armed services who wish to receive transfer credit must provide an official Joint Services Transcript (JST) through the armed services in which he/she served, from the Community College of the Air Force or any other college/university attended. Upon receipt of the official transcript the following actions will occur:

- Within ten (10) business days of transcript receipt, the Credentials Evaluations Office will evaluate the transcript for reading, English, and mathematics placement and any academic (general education) credits earned, posting to the student record as applicable.
- Technical classes that require more review to determine a direct equivalency will be forwarded to appropriate program faculty along with the course description and the accompanying ACE (American Council on Education) course recommendation.
- Military credit recommendations that are direct equivalents to Clark course offerings may be articulated to that specific course. If direct course equivalents do not exist, elective credit (non-direct equivalent) will be awarded when possible. Both direct and non-direct equivalents must be applicable toward the veteran's program of study.
- The Credentials Evaluations Office will post the credit to the student record and then notify the student of credits accepted with directions on how to access their Degree Audit so they may view credit applicability to their program of study.
- In the case of a change of program, the veteran must notify the Credential Evaluations Office so the transfer credit may be re-evaluated and applied to the student record as applicable.

- Per the Veteran's Administration, all veteran student transfer credit must be evaluated within two (2) terms of program start. After the third term, if the student does not submit all transcripts, he/she may be decertified for the use of VA education benefits.
- Veteran students using education benefits are not permitted to opt out of transfer credit evaluation.

Military credit will not be granted for:

- Non-credit courses and workshops;
- Remedial or college preparatory courses;
- Sectarian religious studies

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.

Graduation Ceremony

Participation in Commencement Ceremonies

The June Commencement ceremony is for those students who have completed or plan to complete their degree or certificate during the current academic year. 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. Students completing their degree in the 2016 summer term may participate in Commencement of the previous academic year.

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 in the Advising Department and is given to students once they have submitted the graduation (program completion) application. The Cap and Gown Order Form deadline for submission will be published on the website. There is a fee for caps and gowns; please refer to the order form for current pricing. If you have received honors, honors regalia will be available in the bookstore at the time you pick up your cap and gown packet. 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.

Transfer Credit

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-HLC)
- Northwest Commission on Colleges and Universities (NWCCU)
- 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-ACCJC)
- Western Association of Schools and Colleges/Accrediting Commission for Senior Colleges and Universities (WASC-ACSCU)

Domestic Institution Transfer Policy

Students who have attended other regionally accredited institutions of higher education may choose to transfer credit to Clark College to meet course prerequisites and degree requirements. All coursework, including courses earned as part of prior degrees, will be evaluated on a course-by-course basis for transferability to Clark College. The Credential Evaluations Office will review the content of each course transferred and determine the appropriate course equivalency.

Official copies of transcripts are required for evaluation. Transcripts are considered official if issued directly from the prior institution or delivered in the original sealed envelope. Course descriptions and/or syllabi may be required to complete evaluations in some instances. It is the student's responsibility to request course and catalog information from an outside institution and provide them to Clark College. Once transcripts from other institutions are received, they become part of a student's permanent educational record and cannot be released by Clark College.

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. Any Health Occupation competitive entry program student MUST provide all transfer institution transcripts.

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.

Distribution Reciprocity

The Washington State Community and Technical College Inter-College Reciprocity Policy (Distribution Reciprocity) provides guidelines for transfer credit treatment among the Washington state community colleges. If a student transfers an individual course that meets a Communication Skills, Quantitative Skills, or Distribution Requirement at the sending college for a specific transfer degree, that course is considered to have met that requirement at the receiving college for a similar transfer degree, even if this course does not have an exact equivalent. The receiving institution will accept a specific course's distribution area for a transfer degree if that student:

1. Has met the sending institution's residency credit and meets the receiving institution's policy on continuous enrollment (enrollment pattern needed to complete under the catalog at entrance).
2. Has met the entire Communication Skills, Quantitative Skills, or Distribution Requirement of a transfer degree, according to the sending institution's degree criteria.
3. Has maintained a cumulative college-level grade-point average (GPA) of 2.0 or better at the sending institution.

Students who believe they may qualify for the Distribution Reciprocity agreement should contact the Credential Evaluations Office.

Academic Standards Policy

www.clark.edu/clark-and-community/about/policies-procedures/academic_standards/index.php

The College develops and enforces academic standards for all credit students. The purpose of academic standards is to quickly identify and alert students with low academic achievement and to provide those students assistance for improving their academic performance, such as advising them to utilize student support services. In some cases, students who fail to make satisfactory progress will not be allowed to enroll.

Visit Clark's Academic Standards Policy website for up-to-date information on the policy, procedures, and a flowchart.

Academic Standards Procedure

Academic Concern

The first time the term GPA falls below 2.0, students will be placed on Academic Concern.

- The college will send an e-mail to students' Clark e-mail accounts that offers information about the Academic Standards process and explains what happens at each stage.
- Students will receive a listing of college resources and a recommendation to take advantage of services.

Academic Intervention

The second time the term GPA falls below 2.0, students will be placed on Academic Intervention.

- By the third week of the subsequent quarter, students must attend a group workshop or meet with a designated staff member.
- Students must complete an academic success plan that outlines steps for improving academic performance.
- Students may lose the ability to carry a full course load.
- If students do not attend the workshop or meet with a designated staff member, they will be blocked from registering for classes.

One (1) Term Academic Dismissal

If students have previously been placed on Academic Concern and Academic Intervention statuses, and both their term and cumulative GPAs are below 2.0, they will be placed on One-Term Academic Dismissal.

- Students will be blocked from registering for classes while on One-Term Academic Dismissal status.
- Students may appeal One-Term Academic Dismissal.
    - Students may appeal to the Academic Standards Committee for immediate reinstatement.
    - The college will send an e-mail to students' Clark e-mail accounts that outlines the appeal process. The Appeal Form for One-Term Dismissal is available online.
    - Students must submit a personal statement and all documents requested, and any documentation that supports their statements. The Academic Standards Committee's decisions will be made and communicated to students before the first day of classes.
    - Factors considered in determining an appeal may include academic aptitude, change of major, extenuating circumstances, lapse of time, and relevant experience since suspension that will predict academic success.

- If students do not appeal, or if their appeals are denied, they will be administratively dropped from classes and paid tuition will be refunded.
- Students will receive information about how to return from One-Term Academic Dismissal. They must complete a Request to Return to College Form no later than three weeks before the first day of classes for the term in which they plan to return. Students will be notified about the process, expectations, and timeline to make an appointment with a designated staff member. Students must prepare a written plan in advance that includes the following items for discussion with the staff member:
    - Short-term educational goals;
    - Specific plans to overcome barriers and improve academic progress;
    - A proposed course schedule.
    - The designated staff member will review the plan with the student and outline specific conditions he or she must meet for return from One-Term Academic Dismissal. Once the plan is finalized, the student will be placed on Return from One-Term Academic Dismissal status.
- Upon returning from One-Term Academic Dismissal, students must earn a term GPA of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term GPA of 2.0 or higher upon return from One-Term Academic Dismissal, they will be placed on Four-Term Academic Dismissal.

Four (4) Term Academic Dismissal

If students have previously been placed on Academic Concern, Academic Intervention, and One-Term Academic Dismissal statuses, and both their term and cumulative GPAs remain below 2.0, they will be placed on Four-Term Academic Dismissal.

- Students will be blocked from registering for classes while on Four-Term Academic Dismissal.
- There is no appeal process for Four-Term Academic Dismissal.
- Students will be administratively dropped from registered classes and paid tuition will be refunded.
- Students will receive information about how to return from Four-Term Academic Dismissal. They must complete a Request to Return to College Form no later than three weeks before the first day of classes for the term in which they plan to return. Students will be notified about the process, expectations, and timeline to make an appointment with a designated staff member. Students must prepare a written plan in advance that includes the following items for discussion with the staff member:
    - Short-term educational goals;
    - Specific plans to overcome barriers and improve your academic progress;
    - A proposed course schedule.
    - The designated staff member will review the plan with the student and outline specific conditions he or she must meet for return from Four-Term Academic Dismissal. Once the plan is finalized, the student will be placed on Return from Four-Term Academic Dismissal status.

Upon returning from Four-Term Academic Dismissal, students must earn a term GPA of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term GPA of 2.0 or higher upon return from Four-Term Academic Dismissal, they will be placed on One-Term Academic Dismissal.

Academic Standards for 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.

Student Success Programs

360-992-2830

studentsuccess@clark.edu

www.clark.edu/campus-life/student-support/student_success

The goal of Student Success Programs is to support the retention and success of all Clark College students, from the point of college entry to program completion. We provide targeted outreach and support for students facing challenges with academic progress, first-term students, and students moving from Transitional Studies to college-level coursework. We use proactive, reactive, and data-informed strategies to provide intensive, targeted outreach and intervention designed to meet students at their points of need. Student Success Programs staff and peer mentors assist students with accessing and navigating the various spaces, resources, and strategies available at Clark and the surrounding community that are key for students to establish and achieve their academic goals.

Key services:

- Assistance to students with developing key critical thinking and problem-solving skills that will allow them to appropriately evaluate and respond to difficult academic, career, and life situations
- Targeted outreach and support related to Academic Early Warning (AEW) and Academic Standards Policy (ASP)
- Assistance to struggling students with locating appropriate academic resources and making informed enrollment decisions
- Peer mentoring to help students navigate and access appropriate support resources and strategies that meet their unique needs
- Reinstatement advising and support for students returning to the college
- Goal setting, course selections, and degree/certificate program planning
- Training and support for students, staff, and faculty on the Academic Standards Policy (ASP)

Academic Early Warning (AEW)

www.clark.edu/campus-life/student-support/student_success/aew/index.php

AEW is a resource that enables instructors to communicate with their students early in the term about any behaviors that are interfering with their success in class. The warning is intended to provide students with sufficient time to: 1) identify and correct problematic behaviors that are hindering success in class, 2) access appropriate campus resources, and 3) if necessary, withdraw from classes if circumstances prohibit successful completion of coursework.

Students who receive an Academic Early Warning are encouraged to contact their instructors, trained AEW staff and peer mentors, and financial sources for strategies to improve course grades and guidance on course withdrawals.

Archer Gallery

360-992-2246

www.clark.edu/campus-life/arts-events/archer/index.php

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

www.clarkpenguins.com/index.aspx 360-992-2691

Clark College is a member of the Northwest Athletic Conference (NWAC). The NWAC is the parent organization and coordinates and regulates both men's and women's athletics for thirty-six (36) community colleges located in Idaho, Oregon, Washington, and British Columbia. 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, 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 term or per year. For more information, please contact the PAC office.

Bookstore

360-992-2149 Fax: 360-992-2862

bookstore@clark.edu www.clarkbookstore.com

The Clark College Bookstore, owned and operated by the College, is located in Gaiser Hall and provides shipments or reservationsfrom the store website. The store stocks required textbooks and supplies as requested by classroom instructors and vigorously supports students' interest by maintaining the lowest possible price for textbooks of any college in the region. Additionally, the store facilitates numerous solutions to help Clark students stretch their educational budgets including a comparison shopping tool,textbook and calculator rentals, peer-to-peer textbook exchange, and more.

The bookstore supports the interests of the broader community by selling specialty and educational items, logo items, apparel, gifts, cards, food and beverages, various reference and test preparation items, and more. Personal services available in store include faxing, notary public, special orders, Clark College Theatre and event tickets, USPS stamps, C-Tran bus passes, payment for parking and student IDs and more.

Information regarding accepted payment methods, returns/exchanges, and more can be obtained by visiting us in store or online atwww.clarkbookstore.com.

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. 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.

Child and Family Services

360-992-2393

Toddler and preschool childcare services, summer school-age program

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 five (5) years of age. During the summer, services are available for children up to 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 6:00 p.m. Monday – Friday.

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

www.clark.edu/campus-life/student-life/index.php
Facebook: Clark College Student Life
Instagram & Twitter: clarkstudents
Penguin Union Building 160

The Office of Student Life coordinates programs, support services, and activities that enhance the educational experience of a diverse student population and fosters the intellectual and personal development of students on campus.

Student Life services and resources include:

- The Associated Students of Clark College (ASCC)
- The Activities Programming Board (APB)
- 80-plus events and activities each year including Welcome Week, Involvement Fair, and Spring Thing – see our our online events calendar for more information
- Clubs, programs, committees, and other student involvement opportunities
- Free coffee, Monday-Friday mornings
- Quick-stop computer lab
- Student-use kitchen, including refrigerator and microwave
- Relaxing game room where you can enjoy massage chairs, board games, movies, and more
- FREE student planner
- Free one-time legal consultation services
- Discounted C-Tran bus passes
- Discounted fitness center passes
- Student-use lockers
- Filtered water stations

For more information on any of these services, contact the Office of Student Life, located in the Penguin Union Building, room 160, visit us online, or connect with us on social media.

Student Clubs and Programs

www.clark.edu/campus-life/student-life/clubs/index.php

Clubs and programs provide students an opportunity to develop leadership skills, responsibility, and apply academic, vocational and/or personal learning through involvement on campus and in the community. With more than 50 clubs and programs to choose from, students are bound to find something to match their interests. Clubs and programs may have an educational, national, cultural, political, activity and/or religious focus.

For an up-to-date list of involvement opportunities, visit our website at www.clark.edu/campus-life/student-life/index.php.

Student Government – Associated Students of Clark College (ASCC)

www.clark.edu/campus-life/student-life/ascc/ascc_student_government.php

Recognized by the Board of Trustees as the representative body of Clark College students, ASCC consists of a seven-member Executive Council that acts as a liaison between students, faculty, staff, administration, and the community. They are charged with review and implementation of the ASCC Constitution and Bylaws, committee appointments, club promotion and approval, recruitment for student involvement, oversight of the Services and Activities (S&A) fees, and keeping students informed about legislative policies that directly affect them. All enrolled students are members of ASCC and are thus eligible to participate in events.

Activities Programming Board (APB)

www.clark.edu/campus-life/student-life/ascc/APB-Activities Programming Board.php

With the motto, "We run the fun!" this five-member group is charged with the creation of a comprehensive events calendar to include awareness, cultural, educational, family, and social events for Clark students. Hosting 30+ events each year, including the annual Spring Thing event, it is easy to find an opportunity to relax, learn, and connect at Clark. To find out more about upcoming events visit our online events calendar.

Student Publications

The Independent

www.clarkcollegeindependent.com/

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, faculty, staff, and administration.

Phoenix

www.clark.edu/academics/programs/english/phoenix.php

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 terms 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.

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
- Clark College at WSUV, Rm. 129
- Scarpelli Hall, Rm. 135 and Rm. 023
- Clark College at Columbia Tech Center, Rm. 203 and Rm. 219
- Pathways Center, TBG, Rm. 22

Wireless Network Access

Students may use personal computers and mobile devices 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 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. 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), the Pathways Center, 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 help students choose appropriate courses to help them achieve computer proficiency.

Counseling and Health Center

360-992-2614

chc@clark.edu
www.clark.edu/campus-life/student-support/counseling/index.php
www.clark.edu/campus-life/student-support/counseling/health_services/services.php

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 provide free, short-term, goal-focused counseling. They support students in self-development, goal-setting, and problem-solving to enhance student success. A Nurse Practitioner is also available to provide low-cost health services during limited hours. Services, pricing, and office hours are available on their websites listed above. Self-care items (bandages, aspirin, ibuprofen, cough drops, etc.) are available free of charge.

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 help those with disabilities pursue 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 ensure 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.

Emergency Procedures

www.clark.edu/emergency

The College's emergency procedures are displayed on posters in all classrooms and offices, as well as on the clark.edu website.

Depending on the type of incident, mass notification may be delivered via office and classroom phones, active computer screens, active Smart Classroom screens, and in some areas, loudspeakers. Emergency Building Coordinators are posted in every building to assist with emergency protocols.

Exercises (drills) will be conducted several times each year to ensure general preparedness. All members of the college community are expected to participate. When possible, advance notification of planned exercises will be circulated.

Fitness Center

360-992-2808

www.clark.edu/campus-life/student-life/fitness_center/index.php

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 term 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 before using the fitness center.

Food Service

Food carts serving various cuisines are located in the center of campus between Foster/Hanna Hall and Cannell Library. Snacks, light meals and beverages are also available from vendors in Bauer 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

www.clark.edu/campus-life/student-support/counseling/health_services/insurance

Information about how to obtain health coverage through the Washington Health Benefits Exchange and the Affordable Care Act can be found at the link above.

Health insurance is required for all international students, who 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

360-992-2404

Student Legal Services is a contracted program funded by ASCC that provides free, one-time legal consultation to students. A local general-practice attorney provides multilingual legal counsel on family, criminal, and contract issues for students, as needed.

Thirty-minute consultation appointments are offered once a week through fall, winter and spring terms, and can be arranged through the Student Life office, located in PUB 160. Please call 360-992-2404 to schedule an appointment.

Library

360-992-2151
library.clark.edu/

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, research assistance, and workshops.

Through Summit, a partnership 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 allow students to obtain books quickly and easily.

From the Libraries' website (library.clark.edu), Clark College students, faculty, and staff have 24/7 online access 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. 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 college parking and traffic rules and regulations 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 Clark College at Columbia Tech Center. 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 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 term. To facilitate use of the BackPASS, bus schedules, maps, and other transit information can be found in several locations. C-Tran regularly participates in 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

The Clark College Security/Safety Department 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 term 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 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 assist 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

Annual Clark College student photo ID cards can be purchased in the Clark College Bookstore, Gaiser Hall, for a minimal fee. Current registration and valid photo ID are required to obtain a Clark College student ID (being on wait list is not considered registered). ID cards are not required by the College but do provide free or discounted admission to College events and may qualify for student discounts offered by many local businesses.

Student Tutoring Services

Tutoring is designed to provide individualized attention that supports student learning and academic success. Our friendly, supportive, and encouraging tutors assist with most English, math, science, and general education classes offered at Clark College. Tutors will also help students develop skills and confidence to become stronger, more independent learners. Students who come in for tutoring may also access computers, software, handouts, reference materials, and other resources.

Tutoring services are FREE to all registered Clark College students.

Transitional Studies Tutoring Center 360-992-2750

The Transitional Studies Tutoring Center, at TBG 228, supports CAP and ESL students with tutoring and computer-based learning. 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 Transitional Studies students.

Language & Writing Center 360-992-2253

Located in Hawkins Hall, room 102. Writing tutors are available to help students with all types of writing—essay assignments, journals, research papers, resumes, scholarship essays, and more. Assistance is available at all stages of the writing process, from generating ideas to reviewing completed drafts. Although tutors do not edit or proofread, they will help students determine what their tendencies are concerning grammar errors, explain general concepts, and offer strategies that can lead to more effective writing.

Language students can meet with a tutor for conversation practice and help with written and oral assignments in English and world languages offered at Clark. All services are available on a drop-in or appointment basis.

Science, Technology, Engineering, & Math Centers 360-992-2694

Located in Bauer Hall, room 101/102. Tutors provide assistance with most levels of math, chemistry, engineering, physics, biology, and other STEM subjects. Women in STEM is a separate space where women faculty and tutors provide assistance and promote the achievements of women in math and science. Help is available on a drop-in or appointment basis.

Accounting & Business Center

Located in Applied Arts 4, room 106. Tutoring assistance is available for all levels of accounting and for most business and economics courses. Help is available on a drop-in basis.

Tutoring Commons at Columbia Tech Center

Located on the third floor at Columbia Tech Center in room 336. Tutoring assistance is available in a variety of subjects that varies by term. Help is available on a drop-in basis.

Online Tutoring

Online assistance is available for currently enrolled Clark students. Using the Online Writing Lab, students can upload a draft of their paper and receive written feedback, usually within 24-72 hours.

Tutors are also available to assist via e-Chat (synchronous) or e-Questions (asynchronous) in various subjects, including physics, chemistry, biology, math, calculus, statistics, Spanish, accounting, and more.

To access online tutoring, go to the eTutoring website www.etutoring.org/index.cfm, click the login icon, select "Western eTutoring Consortium," then "Clark College," and follow the instructions.

Veterans Resource Center

360-992-2073

vetresources@clark.edu

www.clark.edu/cc/veterans

Located in Gaiser Hall, room 216, the Veterans Resource Center is available to help veterans and their dependents connect with the resources and networks of support available to them at Clark College and in the local community. We provide a welcoming staff, mentoring from student veterans, and tools to succeed academically and personally. The VRC also provides a math tutor, computer stations, printers, TV, and a comfortable environment to relax. Veterans are encouraged to visit the center to receive information and assistance regarding:

- Benefit Applications and Procedures
- GI Bill Certification
- Veterans Advocacy
- Community Support
- Transition Services
- Campus & Community Resources
- Specialized Programs and Workshops
- Veterans Club

Clark College does not and will not provide any commission, bonus, or other incentive payment based directly or indirectly on success in securing enrollment or financial aid to any persons or entities engaged in any student recruiting or admissions activities, or in making decisions regarding the award of student financial assistance.

Selected programs of study at Clark College are approved by the Workforce Training and Education Coordinating Board's State Approving Agency (WTECB/SAA) for enrollment of those eligible to receive benefits under Title 38 and Title 10, USC.

Special Instructional Programs and Locations

Transitional Studies

College Academic Preparation (CAP)/Adult Basic Education (ABE) 360-992-2741

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

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 tuition charge to students each term. 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 four (4) 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 term tuition charge.

Student Learning Center 360-992-2750

The Student Learning Center provides academic support for ABE/GED and ESL students. Refer to the Tutoring Services section for more information.

Pathways Center 360-992-2747

The Pathways Center supports Transitional Studies students as they transition to either professional/technical education or gainful employment. The center offers computer skills training; technology workshops; help with career and educational planning; and a staff of coaches for one-on-one support. Computers are also available for educational use to increase basic computer skills, basic academic skills, and to gather career and educational information.

Department of Economic & Community Development 360-992-2923

The Department of Economic & Community Development is the region's premier provider of customized training and community education programs, serving both the business community and individual residents of Southwest Washington. This department is dedicated to building community through community education, mature learning, and professional development, as well as participating in regional partnerships in support of economic development.

Customized Learning and Development 360-992-2925

Customized Learning and Development delivers high-quality workforce training that positively affects businesses' bottom lines and supports future success. Clark's expert team assesses business needs, analyzes human and technical resources available, and builds an individualized strategic plan to deliver the training and leadership needed to meet organizations' current objectives and future needs. Customized Learning and Development provides manufacturing, healthcare, business, nonprofit, and government organizations with training, leadership development, and technical and business analysis tools, which directly affects the economy, employment opportunities, and workforce development in Southwest Washington.

Professional Development 360-992-2939

Professional Development offers workplace and technology classes, workshops, and seminars so individuals can develop and strengthen their career in the current dynamic world of work. A wide range of topics—from accounting to health care, career building to graphic arts, small business to Adobe applications—are available to everyone. One-time learning sessions and certificate programs are also available. These courses, workshops, and certificate programs support early and mid-career employees and provide experiences to increase knowledge, productivity, and job satisfaction.

Community Education 360-992-2939

Community Education offers a wide variety of personal enrichment and lifelong learning opportunities to enhance quality of life and encourage the exploration of new interests. Non-credit courses, taught by talented instructors who are experts in their field, are offered for persons of all ages. New classes are offered each term, including topics

such as world language, recreation and wellness, healthy living, and home and gardening. The cooking school in the kitchen classroom at Columbia Tech Center offers demonstration and hands-on courses that educate about nutrition and world culture while building student skills. All Community Education courses reflect a commitment to building community and sustainability.

Mature Learning 360-992-2239

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 is offered including fitness, art, writing, computers, sciences, history, creative writing, health, humanities, and more. Most classes meet two hours a week, either on the main Clark College campus, at Columbia Tech Center, at the Corporate Education location in downtown Vancouver, or at other locations in the community. Mature Learning also provides travel and excursions to places of cultural, scientific, and natural interest.

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) is 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

Table of Contents

General Information

Degrees & Certificates

Clark College awards six (6) 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; the Associate in Applied Technology degree, for completion of a program of study in an occupational program; and the Bachelor of Applied Science (BAS) in Dental Hygiene (DH) or Applied Management degrees. BAS degrees require a minimum of one hundred eighty (180) credits and each associate 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.

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. Courses completed with a grade of 'D' or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or 'C' is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students receive equitable treatment.

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. A student can also earn a Direct Transfer Agreement degree and an additional MRP degree (for instance, a student can earn a degree in both Business Administration –MRP 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

A minimum of thirty (30) credits, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Certificate of Proficiency

A minimum of fifteen (15) credits, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Certificate of Achievement

A minimum of ten (10) credits, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Non-traditional credit, course waivers and credit earned through prior learning assessment may not be included within the minimum number of credits required.

Academic Residency Requirements for Veterans

Clark College, in compliance with the Department of Defense (DOD) Voluntary Education Partnership Memorandum of Understanding (MOU) and Executive Order 13607 of April 27, 2012, limits academic residency requirements for active-duty service members to no more than 25 percent of the degree program (22.5 credits); recognizes all credit course work offered by the institution as applicable in satisfying academic residency requirements; and allows service members to satisfy academic residency requirements with courses taken from Clark College at any time during their program of study.

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 Bachelor of Science, Associate in Applied Science, Associate of Applied Technology and Certificate of Proficiency are based on the cumulative GPA. Students in the Bachelor of Science and 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 term. 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. Be sure to verify which courses have been approved to meet general education requirements for your particular degree or certificate program as Distribution Coding is not universally applied.

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

Title IV Student Complaint Process

The Higher Education Act (HEA) prohibits an institution of higher education from engaging in a "substantial misrepresentation of the nature of its educational program, its financial charges, or the employability of its graduates." 20 U.S.C. §1094(c)(3)(A). Further, each State must have "a process to review and appropriately act on complaints concerning the institution including enforcing applicable State laws." 34 C.F.R. § 600.9. The Washington State Board for Community and Technical Colleges (SBCTC) maintains a process to investigate complaints of this nature brought by community and technical college students in the State of Washington. For more information, contact the SBCTC Student Services Office at 360-704-4315.

Degree & Certificate Distribution Lists

Transfer Degree Distribution List

Communication [C] - 10 credits

Please refer to specific degree for details regarding specified communication requirements

Quantitative Skills/Symbolic Reasoning[Q] -5 credits

Please refer to specific degree for details regarding specified quantitative skills requirements

Health & Physical Education [PE/HPE] - 3 credits

Please refer to specific degree for details regarding specified health and physical 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 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 world language can be applied.

Department	HA	HB
Art	ART 131, 151, 172, 220, 221, 222, 223, 225, 226, 250, 272	ART 103, 104, 105, 110, 115, 116, 117, 118, 140, 141, 142, 145, 146, 173, 174, 180, 181, 182, 189, 190, 191, 203, 204, 208, 257, 258, 259, 260, 261, 262, 270, 271,273, 274, 278, 290, 295, 296, 297
Communication Studies	CMST& 102, 210, 220, 230 CMST216, 240	
Drama	DRMA& 101	DRMA& 140 DRMA 141, 142, 150, 152, 154, 171, 172, 173, 240, 250,271, 272, 273
English	ENGL 130, 131, 132, 133, 140, 143, 145, 150, 152, 156,173, 175, 176, 252 , 254, 260, 261, 262, 264, 265, 266, 267, 268, 269, 270, 272	ENGL 121, 125, 126, 127, 275, 276, 277, 290
Journalism	JOUR 101, 111	

Music	MUSC& 104, 128, 141, 142, 143, 231, 232, 233 MUSC 100, 116, 117, 118, 125, 127, 135	MUSC& 121, 122, 123, 221, 222, 223 MUSC 101, 106, 110, 115, 121, 122, 123, 137, 138, 139, 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, 221, 222, 223, 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 All MUSCA courses
Philosophy	PHIL& 101, 120 PHIL 215, 216, 217, 240, 251, 280, 290	
World Languages	121, 122, 123, 221, 222, 223 in ASL, JAPN, SPAN; ASL 125	SPAN 141
Women's Studies	WS 101, 201, 210	

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.

Department

Addiction Counseling	ACED 101
Anthropology	ANTH& 204, 206, 215
Communication Studies	CMST& 230
Economics	ECON& 201, 202 ECON 101, 110, 111, 112, 120
English	ENGL 175
Geography	GEOG& 100, 102, 200, 205, 207
History	HIST& 126, 127, 128, 146, 147, 148, 215 HIST 231, 251, 252
Human Services Substance Abuse	HSSA& 101
Political Science	POLS& 203 POLS 111, 131, 141,231
Psychology	PSYC& 100, 200 PSYC 203

Sociology	SOC& 101, 201 SOC 121, 131, 220
Women's Studies	WS 101, 201, 210, 220, 225

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. **Please refer to specific degree for details regarding specified science requirements for AST-1 and AST-2**

Department	AA-DTA
Anthropology	ANTH& 215L, 245
Astronomy	ASTR& 101L
Biology	BIOL& 100L, 160L, 221L, 222L, 223L, 241L, 242L, 251L, 252L, 253L, 260L BIOL 101L, 105L, 139, 140, 141, 142, 143, 145, 146, 150L, 164, 165L, 167, 168L, 180, 208L, 224L
Chemistry	CHEM& 110L, 121L, 131L, 141, 142, 143, 151L, 152L, 153L, 241, 242, 243, 251L, 252L, 253L
Environmental Science	ENVS& 101 ENVS 109L, 211L, 218L
Geology	GEOL& 101L, 103L GEOL 102L, 218
Meteorology	METR 101L
Nutrition	NUTR& 101
Oceanography	OCEA& 101L
Physical Science	PHSC 101L, 102L, 104L, 106, 110L
Physics	PHYS& 100, 101L, 124L, 125L, 126L, 134, 135, 136, 231L, 232L, 233L, 241, 242, 243

Elective Requirements

Complete a total of twenty-seven (27) credits from courses numbered 100 and above. The two areas of electives are listed below.

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).

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

A maximum of two (2) credits in PE activity can apply toward this area.

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

Communication Studies – excluding 280

Computer Science & Engineering

Computer Technology – CTEC 100, 120, 121 only

Drama

Early Childhood Education – ECED& 105, 120; and EDUC& 115 only

Economics

Education – EDUC& 201 only

Engineering

English

Environmental Science

Forensic Science

Geography

Geology

Health – excluding HLTH 120, 121, 123

Health & Physical Education – excluding HPE 220, 280, 290

History

Human Services Substance Abuse–HSSA& 101

Japanese

Journalism – JOUR 101, 111 only

Mathematics

Meteorology

Music

Nutrition

Oceanography

Philosophy

Physical Education**

Physical Science

Physics

Political Science

Psychology

Sociology

Spanish

Women's Studies

**A maximum of two (2) credits in PE activity can apply toward this area.

General Electives

Any additional courses of 100 level or higher may apply. Physical Education activity credits are limited to a maximum of three (3) credits regardless of distribution area in the DTA degree.

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

No more than 15 credits can be taken from the General Elective area.

Application of Credit

Credits earned through Advanced Placement (AP), International Baccalaureate (IB), Tech Prep/Direct Credit, CLEP, cooperative work experience, military experience, special projects, and course challenge must fall within the following guidelines when awarded:

1. Credits may be awarded only if the learning experiences fall within the outcomes of the regular curriculum of the college.
2. Academic transcripts will indicate other credits awarded.
3. Credits cannot duplicate credits already awarded.
4. Students should read the degree requirements section of this catalog for information about applying other credit options toward a degree.

The following lists the number of credits that can be applied through other credit options 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 sixty (60) credits earned through AP and/or IB will apply.
- A maximum of 25% of the degree or certificate may have credits from course challenge and military experience.
- Students can apply 15 credits in CLEP, Tech Prep/Direct Credit, cooperative work experience, and Special Projects toward an AA, AFA, and AST degree.

- CLEP, cooperative work experience, and Tech Prep/Direct credits will only apply toward general electives. AP, IB, course challenge, and potentially military experience credits would be allowed in distribution areas.

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 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 should 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 term 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 disciplines[2]) – PHIL& 101, MUSC& 105, DRMA& 101, orENGL& 111
- 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 with 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).

AA Transfer Degree Overview

Transfer Degrees Overview

Associate in Arts (AA) Associate in Arts – Major Related Program (MRP)

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. The AA-DTA is a statewide agreement between the Washington State community and technical colleges and Washington State public universities, as well as some private colleges and universities. The agreement outlines transferability of coursework and standing; in most cases students who have completed an AA-DTA will also have satisfied general education requirements at the baccalaureate institution and will have junior standing. Students should review their baccalaureate institution to see if they are part of the DTA in Washington State.

AA – DTA Degree Options:

A student may not earn more than two (2) DTA degrees 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
- Elementary Education – Transfer to WSU Vancouver
- Nursing – Transfer to WSU Vancouver

AA – MRP

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

Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. They also are not used in calculating students' Clark GPA. Courses completed with a grade of "D" or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or "C" is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

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 world language coursework can be used to meet Specified or GeneralElective requirements.

Physical Education Activity: Three (3) credits maximum in PE activity can apply toward the degree.

A course can apply toward only one (1) distribution requirement (i.e., Communication Skills, Quantitative Skills/Symbolic Reasoning 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.

Excess credits earned in distribution areas (i.e., Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences, and Natural Sciences) can be used to fulfill the Elective requirements.

Other Applicable Credit Options:

- Advanced Placement (AP) and/or International Baccalaureate (IB): A maximum of sixty (60) credits from AP, IB, or a combination of both, can be applied to a degree.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits to be applied to a degree. Credits will be used to fulfill general elective requirements only.
- Course Challenge: Students may use credits earned from successful course challenges toward 25% of the degree or certificate. Credit by course challenge will meet academic residency requirements.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate, there is no limit to the number of credits that can be applied.
- Cooperative Work Experience: No more than fifteen (15) credits may be applied to the associate degree.
- Special Projects: No more than fifteen (15) credits in Special Projects will be allowed toward the Associate in Arts degree.

- Military Experience: Credits may earned by previous military experience. Please contact the Veterans Affairs Office at Clark College for further information. Credit awarded for military experience may be granted for up to 25% of the degree and/or certificate.

Pass/Fail Grading Option: Sixty (60) credits maximum in courses with Pass/Fail grading option can apply toward the degree.

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 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 BUS 211); AND take a five- (5) credit communication studies course (CMST& 210, 220, or 230).

Quantitative Skills/Symbolic Reasoning Skills [Q] – 5 credits[1]

1. Five (5) credits of college level mathematics (a course with a Mathematics prefix numbered 100 or above[2]) that furnishes the quantitative skills/symbolic reasoning skills required in the commonly recognized educational transfer pathways toward a baccalaureate degree. Accepted courses in these pathways are: Precalculus or higher, Mathematics for Elementary Education[3], Business Precalculus/Finite Mathematics, Statistics, and Math in Society; or

2. Five (5) credits of a symbolic logic course that focuses on (a) sentence logic with proofs, and (b) predicate logic with quantifiers and proofs, and/or Aristotelian logic with Venn Diagrams.

[1]For admission to the institution, the University of Washington requires completion of the course designated Algebra II (integrated Math III: Math 098) at either the high school or community college level. However, UW recognizes the new QSR as fulfilling the DTA QSR requirement.

[2]To qualify for QSR, college level math and logic courses must require intermediate algebra course work (high school or college) with a grade of 2.0 or higher as a prerequisite.

[3]The University of Washington accepts Mathematics for Elementary Education for elective credit, but not as meeting its QSR requirement, since UW offers no degree pathway for which it is appropriate.

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

Oral Communication [OC] – 5 credits

- Clark students must complete a course in oral communication. Students may apply this course within the Humanities, Social Sciences (CMST& 230 only), 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

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 world 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 (1) lab science.

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 fifteen (15) credits can be taken from the General Elective area.

Specified Electives [SE] – Approved courses that apply: [C, HA, HB, HE, HPE, NS, OC, Q, SE, SS] – 12 credits. A maximum of two (2) credits in PE activity can apply toward this area.

General Electives [GE] – 15 credits. Any additional courses of 100-level or higher may apply. Note: Coursework in ESL or FLPC cannot apply to the AA degree program.

Career and Technical Degrees and Certificates Distribution Lists

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
    - Associate in Applied Sciences (AAS): 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): 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 of major-related requirements.
- Certificate of Proficiency: Forty-five (45) credits minimum
- Certificate of Achievement: Twenty-one (21) credits minimum

- 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 courses unless otherwise noted in the department requirements for all courses taken at Clark College.

General Credit Restrictions

Physical Education Activity: Three (3) credits maximum in PE activity can apply toward the degree.

Other Applicable Credit Options:

- Advanced Placement (AP) and/or International Baccalaureate (IB): A maximum of sixty (60) credits from AP, IB, or a combination of both, can be applied to a degree.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits to be applied to a degree. Credits will be used to fulfill general elective requirements only.
- Course Challenge: Students may use credits earned from successful course challenges toward 25% of the degree or certificate.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate, there is no limit to the number of credits that can be applied.
- Cooperative Work Experience: No more than fifteen (15) credits may be applied to the associate degree.
- Special Projects: No more than fifteen (15) credits in Special Projects will be allowed toward the Associate in Arts degree.
- Military Experience: Credits may be earned by previous military experience. Please contact the Credentials Evaluations Office at Clark College for further information.

Advanced Placement/International Baccalaureate: Sixty (60) credits combined maximum in Advanced Placement (AP) and International Baccalaureate (IB).

Pass/Fail Grading Option: Sixty (60) 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.

General Education Requirements

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

Communication Skills [C]:

**Communication Studies courses cannot be counted toward the first three (3) credits of Communication Skills [C]

Department	AAS – 6 credits minimum	AAT – 5 credits minimum	CP – 3 credits minimum
Business	BUS 211		BUS 211
Business Technology	BTEC 107	BTEC 107	BTEC 106, 107
Communication Studies**	CMST& 210**, 220**, 230**		
English	ENGL 098, 108, 109, 110, 212 ENGL& 101, 102, 235	ENGL 212 ENGL& 101, 235	ENGL 097, 098, 103, 212 ENGL& 101, 102, 235
Management	MGMT 107		MGMT 107
Professional Technical Writing	PTWR 135	PTWR 135	PTWR 135

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.

Health & Physical Education[HE, HPE, PE, PEDNC, PEMAR, PESPC] – 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, 108, 206, 207, 208, or 210
- PE activity

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

- HPE 220, 258, or 266

Computational Skills [CP]:

Department	AAS – 3 credits minimum	AAT – 5 credits minimum	CP – 3 credits minimum
Business	BUS 102	BUS 102	BUS 102
Business Technology Medical Office	BMED 103	BMED 103, 105	BMED 103
Chemistry			CHEM 095
Computer Science	CS& 131, 141		CS& 141
Computer Science & Engineering	CSE 121, 222, 223, 224		CSE 121, 222, 223, 224
Computer Technology	CTEC 121	CTEC 121	CTEC 121
Environmental Science			ENVS 135

Mathematics	All MATH/MATH& courses numbered 030 or higher EXCEPT MATH 096	MATH 103, 105, 111 MATH& 107 Or any MATH/ MATH& course for which these courses are a prerequisite	All MATH/MATH& courses numbered 030 or higher EXCEPT MATH 096
Pharmacy Technician			PHAR 110
Professional Technical Computer Skills	PTCS 110	PTCS 110	PTCS 110

A placement test score qualifying the student for entry into MATH 090 will satisfy this requirement for certain designated programs.

Human Relations [HR]:

Department	AAS – 3 credits minimum	AAT –5 credits minimum	CP – 3 credits minimum
Addiction Counseling	ACED 101, 201	ACED 101, 201	ACED 101, 201
Business Technology	BTEC 148	BTEC 148	BTEC 148
Business Medical	BMED 166, 225, 226	BMED 166, 225, 226	BMED 166, 225, 226
Business	BUS& 101	BUS& 101	BUS& 101
Communication	CMST& 210 CMST 230	CMST& 210 CMST 230	CMST& 210 CMST 230
College	COLL 101	COLL 101	COLL 101
Education	EDUC& 150	EDUC& 150	EDUC& 150 (ECE Only)
Human Development	HDEV 103, 105, 123, 155, 175, 186, 195, 198, 200	HDEV 103, 105, 123, 155, 175, 186, 195, 198, 200	HDEV 103, 105, 123, 155, 175, 186, 195, 198, 200
Management	MGMT 101, 106, 110, 112, 120, 122, 125, 128, 132	MGMT 101, 106, 110, 112, 120, 122, 125, 128, 132	MGMT 101, 106, 110, 112, 120, 122, 125, 128, 132
Psychology	PSYC& 100, 200 PSYC 203	PSYC& 100, 200 PSYC 203	PSYC& 100, 200 PSYC 203
Sociology	SOC& 101, 201 SOC 121, 131, 220	SOC& 101, 201 SOC 121, 131, 220	SOC& 101, 201 SOC 121, 131, 220
Women's Studies	WS 101	WS 101	WS 101

Humanities [HA, HB]–3 credits **for AAS only**

Department	HA	HB
Art	ART 131, 151, 172, 220, 221, 222, 223, 225, 226, 250	ART 103, 104, 105, 110, 115, 116, 117, 118, 140, 141, 142, 145, 146, 173, 174, 180, 181, 182, 189, 190, 191, 203, 204, 208, 257, 258, 259, 260, 261, 262, 270, 271, 273, 274, 278, 290, 295, 296, 297
Communication Studies	CMST& 102, 210, 220, 230 CMST216, 240	
Drama	DRMA& 101	DRMA& 140 DRMA 141, 142, 150, 152, 171, 172, 173, 240, 250, 271, 272, 273
English	ENGL 130, 131, 132, 133, 140, 143, 145, 150, 152, 156, 252, 254, 260, 261, 262, 264, 265, 266, 267, 268, 269, 270, 272	ENGL 121, 125, 126, 127, 275, 276, 277, 290
Journalism	JOUR 101, 111	
Music	MUSC& 104, 128, 141, 142, 143, 231, 232, 233 MUSC 100, 116, 117, 118, 125, 127, 135	MUSC& 121, 122, 123, 221, 222, 223 MUSC 101, 106, 110, 115, 121, 122, 123, 137, 138, 139, 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, 221, 222, 223, 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 All MUSCA courses
Philosophy	PHIL& 101, 120 PHIL 215, 216, 217, 240, 251	
World Languages	121, 122, 123, 221, 222, 223 in ASL, JAPN, SPAN; ASL 125	
Women's Studies	WS 101, 201, 210	

Social Sciences [SS]–3 credits for AAS only

Department	
Addiction Counseling	101
Anthropology	ANTH& 204, 206, 215
Criminal Justice	CJ& 101, 105
Communication Studies	CMST& 230
Geography	GEOG& 100, 102, 200, 205, 207
History	HIST& 126, 127, 128, 146, 147, 148, 215
	HIST 231, 251, 252
Human Services Substance Abuse	HSSA& 101
Political Science	POLS& 203
	POLS 111, 131, 141, 151, 152, 153,231
Psychology	PSYC& 100, 200
	PSYC 203
Sociology	SOC& 101, 220
	SOC 121, 131, 201
Women's Studies	WS 101, 201, 210, 220, 225

Natural Sciences [NS]– 3 credits for AAS only

Department	
Anthropology	ANTH& 215L, 245
Astronomy	ASTR& 101L
Biology	BIOL& 100L, 160L, 221L, 222L, 223L, 241L, 242L, 251L, 252L, 253L, 260L
	BIOL 101L, 105L, 139, 140, 141, 142, 143, 145, 146, 150L, 164, 165L, 167, 168L, 180, 208L, 224L
Chemistry	CHEM& 110L, 121L, 131L, 141, 142, 143, 151L, 152L, 153L, 241, 242, 243, 251L, 252L, 253L
Environmental Science	ENVS 109L, 211L, 218L
Geology	GEOL& 101L, 103L
	GEOL 102L, 218
Meteorology	METR 101L
Nutrition	NUTR 103
Oceanography	OCEA& 101
Physical Science	PHSC 101L, 102L, 104L, 106, 110L
Physics	PHYS& 100, 101L, 124L, 125L, 126L, 134, 135, 136, 231L, 232L, 233L, 241, 242, 243

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, but more than twenty (20) 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, requiring twenty (20) or less credits. 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. These certificates are not awarded a standard Clark College diploma.

Application of Credit

Credits earned through Advanced Placement (AP), International Baccalaureate (IB), Tech Prep/Direct Credit, CLEP, cooperative work experience, military experience, special projects, and course challenge must fall within the following guidelines when awarded:

- Credits may be awarded only if the learning experiences fall within the outcomes of the regular curriculum of the college.
- Academic transcripts will indicate other credits awarded.
- Credits cannot duplicate credits already awarded.
- Students should read the degree requirements section of this catalog for information about applying other credit options toward a degree.

Associate in Applied Science (AAS), Associate in Applied Technology (AAT):

- A maximum of sixty (60) credits earned through AP and/or IB will apply.
- A maximum of 25% of the degree or certificate may have credits from course challenge and/or military experience.
- For the AAS and AAT, approved AP, IB, and Tech Prep/Direct Credit will apply to general education requirements where applicable. If Tech Prep/Direct Credit courses apply to a professional technical certificate, there is no limit to the number of credits that can be applied.
- Credits earned may apply toward the general elective, general education, distribution and/or program requirement categories of the degrees.
- Academic residency requirements must be met as well. Successful course challenge requirements will meet residency requirements.

Certificate of Proficiency (CP), Certificate of Achievement (CA):

- Up to fifteen (15) credits may be earned through course challenge, CLEP, special projects, cooperative work experience, Tech Prep/Direct Credit and applied to CP programs.
- Military experience credit can constitute 25% of the certificate.
- If Tech Prep/Direct Credit courses apply to a professional technical certificate, there is no limit to the number of credits that can be applied.
- Up to ten (10) credits may be earned through course challenge, CLEP, military experience, cooperative work experience, special projects, or Tech Prep/Direct Credit and applied to CA programs.
- Credits earned will apply toward general education or program requirements.

- Academic residency requirements must be met as well. Successful course challenge requirements will meet residency requirements.

International Baccalaureate (IB) 360-992-2805

Clark College recognized 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 sixty (60) credits in IB coursework can apply to the Associate in Arts or Associate in Science – Transfer programs.

Students should have an official copy of their IB scores sent to Clark College, Attn: Credential Evaluations/GHL 108, 1933 Fort Vancouver Way, Vancouver, WA 98663. Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits to be awarded. IB credits are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

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 an applicable credit option and is subject to the restrictions listed under the Other Applicable Credit Options section in this catalog.

Mathematics

Students successfully completing the Higher Level Mathematics Exam with a minimum score of five (5) will be granted college 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& 124L, 125L, 126L, 134, 135, 136 (15 credits).

English

Students successfully completing the Higher Level English A Exam with a minimum score of five (5) will be granted college credit for ENGL& 101 (5 credits).

Procedure for Requesting AP Credits

Students who complete an 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 three (3), but not the specific score listed for each subject, will be granted five (5) credits in general electives. For any AP test that is not listed below, 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 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 sixty (60) credits in AP coursework can apply to the Associate in Arts or the Associate in Science – Transfer programs.

Scores

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

Biology
Grade: 4 or 5
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 A
Grade: 3, 4, or 5
Action: CS& 141 (5 credits)

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)

Environmental Science
Grade: 3, 4, or 5
Action: BIOL 101 (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.

Human Geography
Grade: 5
Action: GEOG& 200 (5 credits)

Geography
Grade: 5
Action: GEOG& 100 (5 credits)

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.

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.

Macroeconomics
Grade: 3, 4, or 5
Action: ECON& 202 (5 credits)

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)

Microeconomics
Grade: 3, 4, or 5
Action: ECON& 201 (5 credits)

Physics (Physics B Exam)
Grade: 3, 4, or 5
Action: PHYS& 124L, 134 (5 credits)

Physics (Physics C Mechanics Exam)
Grade: 3 or 4
Action: PHYS& 124L, 134 (5 credits)
Grade: 5
Action: PHYS& 231L, 241 (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.

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

Section C:
Degrees and Certificates

SECTION C: Degrees and Certificates

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SECTION C: Degrees and Certificates

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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 Accounting Clerk certificate is designed to prepare the student for an entry-level position as an accounting clerk or bookkeeper. The student records transactions and prepares the basic essential financial statements which contribute to vital operational policies and decisions. Student learning takes place in both manual and computerized environments.

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.

General Education Requirements

Communication Skills

BTEC 106	APPLIED OFFICE ENGLISH	3 cr.

or

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Computational Skills

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations

BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.

Business Core Courses

BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
BTEC 100	KEYBOARDING	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.

Major Area Requirements

BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 036	ACCOUNTING APPLICATIONS	3 cr.
BUS 130	COMPUTERIZED ACCOUNTING	3 cr.
BUS 199	COOPERATIVE WORK EXPERIENCE **	1-5 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 170	EXCEL FOR BUSINESS ***	3 cr.
CMST&220	PUBLIC SPEAKING	5 cr.

Total Required Credits: 56-58

***Minimum of 5 credits must be earned in Cooperative Work Experience*

****Prior completion of BTEC 169 or instructor permission required. Funding sources do not pay for courses specifically called out as a requirement*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment Gainful Employment Program Information page.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Manually and using a calculator, perform basic computations to approach practical business problems using appropriate mathematical techniques.
- 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.
- Use the latest accounting software to perform the steps of the accounting cycle.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

Accounting (AAS)

The Accounting Associate of Applied Science degree is a two-year degree designed to provide knowledge in accounting to prepare the graduate for entry-level employment in private or public sectors as a bookkeeper or para-accountant. The student records, analyzes, and interprets transactions, including preparation of essential financial statements. In addition, the student will learn how to assist decision makers in understanding and applying payroll, tax, and legal rules and regulations. Student learning takes place in both manual and computerized environments.

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.

Certificate of Proficiency Completed accounts for 56-60 of necessary credits.

General Education Requirements

Communicaiton Skills

CMST&220	PUBLIC SPEAKING	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Health & Physical Education (3 credits required)

Humanities (3 credits required)

Natural Sciences **3**

Human Relations - *satisfied in the CPs.*

Social Science - *satisfied in the CPs.*

Computational Skills- *satisfied in the CPs.*

Major Area Requirements

ACCT&201	PRINCIPLES OF ACCOUNTING I	5 cr.
ACCT&202	PRINCIPLES OF ACCOUNTING II	5 cr.

ACCT&203	PRINCIPLES OF ACCOUNTING III	5 cr.
BUS 130	COMPUTERIZED ACCOUNTING	3 cr.
BUS& 201	BUSINESS LAW	5 cr.
BUS 203	DESCRIPTIVE STATISTICS	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.

Additional Major Area Electives

Complete a minimum of 3 to 5 additional credits from the following areas:

• Accounting (ACCT)

• Business Administration (BUS)

• Economics (ECON)

• Supervisory Management (MGMT)

• Computer Applications (BTEC - 6 credit maximum)

and

Complete as many General Elective (GE) courses as needed to reach the total of 90 credits required by the degree.

Total Required Credits: 90-102

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- 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.
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

Addiction Counselor Education

The Clark College Addiction Counselor Education Department (ACED) program offers an AAS, for students pursuing the Chemical Dependency Professional (CDP) certification, an AA for students wishing to transfer to a state college or university and a Certificate of Proficiency for students who already possess a degree and plan to sit for the CDP state exam. The ACED program is certified by the National Association of Alcohol and Drug Abuse Counselors (NAADAC), as well as the National Addiction Studies Accreditation Commission (NASAC).

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

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Human Relations

PSYC&100	GENERAL PSYCHOLOGY	5 cr.

Computational Skills **3**

Major Area Requirements

ACED 101	SURVEY OF ADDICTIONOLOGY *	3 cr.
or		
HSSA&101	INTRO TO ADDICTIVE DRUGS	5 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	3 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.
PSYC&200	LIFESPAN PSYCHOLOGY	5 cr.

Total Required Credits: 59-61

**For non-majors also.*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employmentGainful Employment Program Information page.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Treat substance abuse clients in multiple settings including individual and group counseling situations.
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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 Washington State Chemical Dependency Professional exam.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)

Addiction Counselor Education (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Health & Physical Education	**3**
Computational Skills	**3**

Human Relations

PSYC&100	GENERAL PSYCHOLOGY **	5 cr.

Humanities	**3**
Social Sciences	**3**
Natural Sciences	**3**

Major Area Requirements

ACED 101	SURVEY OF ADDICTIONOLOGY *	3 cr.
or		
HSSA&101	INTRO TO ADDICTIVE DRUGS	5 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	3 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	1-6 cr.
and ACED 211	FIELD PLACEMENT II	1-6 cr.
PSYC&200	LIFESPAN PSYCHOLOGY **	5 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

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	3 cr.

Total Required Credits: 90

**For non-majors also.*

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

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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 Washington State Chemical Dependency Professional exam.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Treat substance abuse clients in multiple settings including individual and group counseling situations.

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.

Oral Communication	**5**
Quantitative Skills	**5**
Health & Physical Education	**3**
Humanities**	**15**

Social Sciences (15 credits required)

PSYC&100	GENERAL PSYCHOLOGY	5 cr.
and		
Additional credits from two other departments.		10

Natural Sciences	**15**
Must include a lab science	

Major Area Requirements

ACED 101	SURVEY OF ADDICTIONOLOGY	3 cr.
or		
HSSA&101	INTRO TO ADDICTIVE DRUGS	5 cr.
ACED 122	INTRODUCTION TO ADDICTIONS COUNSELING SKILLS	3 cr.
ACED 125	GROUP COUNSELING IN ADDICTIONS	3 cr.
ACED 136	LAW AND ETHICS IN ADDICTIONS COUNSELING	3 cr.
ACED 160	PHARMACOLOGY OF DRUGS OF ABUSE	3 cr.
ACED 201	THEORIES OF COUNSELING	3 cr.
PSYC&200	LIFESPAN PSYCHOLOGY *	5 cr.
Additional Specified Electives		4

Total Required Credits: 90

** For non-majors also.*

***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 world language can be applied.*

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

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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 Washington State Chemical Dependency Professional exam.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)

- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Treat substance abuse clients in multiple settings including individual and group counseling situations.

Administrative Assistant and Management

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.

Clark College's Business Technology program teaches basic skills for the office professional in every business, industry, and agency. Choose the training plan that best fits your educational goals, work schedule, and family commitments. Learn business English, keyboarding and fundamental computer skills in programs like Excel, Access and Word.

A complete two-year course of study is available for those entering the professional world for the first time, as well as one-, two-, or three-quarter programs and individual classes designed to update office skills.

Front Office Assistant (CA)

Front office assistants are versatile office workers who perform many clerical duties important to the smooth operation of an office. They may file records; tabulate and post data; prepare and mail receipts, invoices, and similar items; operate calculators, copiers, and computers; receive customers; and perform other customer service activities. 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 certificate.

Major Area Requirements

BTEC 107	BUSINESS ENGLISH	5 cr.
BTEC 101	BEGINNING KEYBOARDING (3 credits required) *	1-3 cr.
or BTEC 103	REFRESHER KEYBOARDING (3 credits required) *	1-3 cr.
BTEC 120	INTRODUCTION TO WORD	3 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.
BTEC 114	INTRODUCTION TO OUTLOOK	1 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Total Required Credits: 27

**Register for BTEC 100*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment Gainful Employment Program Information page.

Office Assistant (CP)

An office assistant gathers and inputs data into a computer to perform clerical duties and to maintain business records and reports. The office assistant typically performs a variety of other duties, including filing, sorting mail, answering the telephone, posting data, and doing calculations on desk top calculators.

General Education Requirements

Communication Skills (3 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.

Computational Skills (3 credits required)

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations (3 credits required)

BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.
CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Core Requirements

BTEC 100	KEYBOARDING (3 credits required)*	1-3 cr.
BTEC 114	INTRODUCTION TO OUTLOOK	1 cr.
BTEC 120	INTRODUCTION TO WORD	3 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 169	INTRODUCTION TO EXCEL	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 (3 credits required)	1-3 cr.

General Office Administration Concentration Course List

BTEC 155	INTRODUCTION TO OFFICE PUBLISHING TOOLS	3 cr.
BTEC 165	POWERPOINT PRESENTATION	3 cr.
BTEC 180	ACCESS FOR BUSINESS	3 cr.
or		
CTEC 180	INTRODUCTION TO ACCESS	3 cr.
BTEC 201	DOCUMENT FORMATTING (3 credits required)	1-3 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.

Medical Office Administration Concentration Course List

BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 129	MEDICAL REIMBURSEMENT	5 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.

Total Required Credits: 47-48

**BTEC 101 or 103 is required for this program; once registered for BTEC 100 students will be placed in the appropriate class as skill indicates.*

***BTEC 147 may be substituted for your first term of Seminar.*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment Gainful Employment Program Information page.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Produce professional documents using word processing, spreadsheet, graphics, and database software.
- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Produce and edit business documents implementing proper grammar, spelling, word usage, and sentence structure.

Administrative Assistant (AAT)

The administrative assistant is a key member of the office team performing a wide variety of duties which enable management to focus on management functions. These duties may include coordinating work flow, keeping projects on schedule, handling phones, composing correspondence, setting up meetings, including agenda and minutes, greeting and screening visitors, making travel arrangements, managing data storage and retrieval, and supervising and hiring clerical support staff. Students seeking an administrative assistant degree may choose to focus their studies on general office or medical office. During the last few quarters of attendance, students will complete a cooperative work experience. 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 degree.

General Education Requirements

Communication Skills (5 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.

Computational Skills (5 credits required)

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

BTEC Core Requirements

BTEC 100	KEYBOARDING *	1-3 cr.
BTEC 114	INTRODUCTION TO OUTLOOK	1 cr.

BTEC 120	INTRODUCTION TO WORD	3 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 140	BUSINESS TECHNOLOGY SEMINAR *	2 cr.
**General Office must take two quarters of seminar for a total of 4 credits and two quarters of co-op for a total of 6 credits*		
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 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BTEC 211	ADMINISTRATIVE PROCEDURES	5 cr.

General Office Administration Concentration Course List

BTEC 155	INTRODUCTION TO OFFICE PUBLISHING TOOLS	3 cr.
BTEC 165	POWERPOINT PRESENTATION	3 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.
BTEC 180	ACCESS FOR BUSINESS	3 cr.
or		
CTEC 180	INTRODUCTION TO ACCESS	3 cr.
BTEC 201	DOCUMENT FORMATTING	1-3 cr.
BTEC 203	SPEED AND ACCURACY BUILDING	1-3 cr.
BTEC 207	INTRODUCTION TO SHAREPOINT	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.

General Office Administration Concentration

minimum of 11 credits of the following

BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 110	CUSTOMER SERVICE	3 cr.
BUS& 201	BUSINESS LAW	5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.

Medical Office Administration Concentration Course List

BMED 105	STATISTICS FOR HEALTH CARE PROFESSIONALS	2 cr.
BMED 110	MEDICAL TERMINOLOGY I	3 cr.

BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO PATHOPHYSIOLOGY	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 207	INTRODUCTION TO SHAREPOINT	3 cr.
BUS 110	CUSTOMER SERVICE	3 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.

Total Required Credits: 90-95

**BTEC 101 or 103 is required for this program; once registered for BTEC 100 students will be placed in the appropriate class as skill indicates.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods.
- Solve quantitative problems and interpret the solutions.
- Demonstrate interpersonal/human relations skills.
- 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

Office Management (AAT)

This program is designed for individuals who have experience working in an office setting and wish to move up into a management role. Students will prepare for assuming a management position by taking a variety of classes in management, accounting, administrative office procedures, and software applications. The program will give students a broad educational base and prepare them to manage an office administrative support team. 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 degree.

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
BUS 211	BUSINESS COMMUNICATIONS	3 cr.

Computational Skills (5 credits required)

BUS 203	DESCRIPTIVE STATISTICS	3 cr.

Human Relations (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BTEC 107	BUSINESS ENGLISH	5 cr.
BTEC 120	INTRODUCTION TO WORD	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 180	ACCESS FOR BUSINESS	3 cr.
or CTEC 180	INTRODUCTION TO ACCESS	3 cr.
BTEC 195	E-COMMERCE: INTRO TO BUSINESS ON THE WEB	3 cr.
BTEC 211	ADMINISTRATIVE PROCEDURES	5 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.
MGMT 126	PROJECT MANAGEMENT	4 cr.
MGMT 128	HUMAN RESOURCES MANAGEMENT	3 cr.
MGMT 199	COOPERATIVE WORK EXPERIENCE (3 credits required)	1-5 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
BUS 102	BUSINESS MATH APPLICATIONS	5 cr.
ACCT&201	PRINCIPLES OF ACCOUNTING I	5 cr.
ACCT&202	PRINCIPLES OF ACCOUNTING II	5 cr.
BUS 130	COMPUTERIZED ACCOUNTING	3 cr.

Electives

Take a minimum of 4 credits from the electives listed below:

MGMT 103	APPLIED MANAGEMENT SKILLS	3 cr.
MGMT 106	MOTIVATION AND PERFORMANCE	3 cr.
MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	3 cr.
MGMT 110	CREATIVE PROBLEM SOLVING (strongly recommended)	3 cr.
MGMT 112	CONFLICT MANAGEMENT	2 cr.
MGMT 120	SUPERVISOR AS A TRAINER COACH	3 cr.
MGMT 122	LEADERSHIP PRINCIPLES	3 cr.
MGMT 125	TEAM BUILDING AND GROUP BEHAVIOR (strongly recommended)	3 cr.
MGMT 132	LEGAL ISSUES IN EMPLOYEE RELATIONS (strongly recommended)	3 cr.
MGMT 133	PRODUCTION AND OPERATIONS MANAGEMENT	3 cr.
BUS 280	SELECTED TOPICS	1-5 cr.

Total Required Credits: 92

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Create, compose, and edit a variety of office correspondence, reports, tables, spreadsheets, charts, and database reports from rough drafts of text and data using word processing, spreadsheets, database, and desktop publishing software.
- Identify functions of business organizations and management in the global marketplace.
- Developing an understanding of the functions and skills needed by supervisors.

- Knowledge of accounting theory and practice including the entire accounting cycle using computerized methods to solve common business problems.
- Demonstrate and use application of statistics to practical business problems.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

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 (recommended)	5 cr.

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.

Humanities (15 credits required) *, ****

ART 220	ART HISTORY: ANCIENT TO LATE ANTIQUE	5 cr.
or		
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.
or		
ART 225	ART HISTORY: ASIAN ART	5 cr.
or		
ART 250	WOMEN ARTISTS THROUGH HISTORY	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.

Additional Requirements

COLL 101	COLLEGE ESSENTIALS: INTRODUCTION TO CLARK	2 cr.

Pre-Major Program Recommendations

ART 103	DRAWING I	3 cr.
ART 104	OBSERVATIONAL DRAWING	4 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.
ART 203	THE HUMAN FIGURE I	4 cr.
or ART 118	TIME-BASED ART AND DESIGN	4 cr.
or		
ART 105	CONTEMPORARY DRAWING PRACTICES	4 cr.

Total Required Credits: 90

***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.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

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.

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.

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.

Additional Requirements

COLL 101	COLLEGE ESSENTIALS: INTRODUCTION TO CLARK	2 cr.

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 118	TIME-BASED ART AND DESIGN	4 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 106	SOCIAL MEDIA EXPLORATION	3 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.
ART 270	PUBLICATION PRODUCTION	1-9 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.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

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 (recommended)	5 cr.

Quantitative Skills (5 credits required)

MATH&107	MATH IN SOCIETY (recommended)	5 cr.
or any college level Math class		

Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS (recommended)	3 cr.
or HPE 266	MIND BODY HEALTH (recommended)	3 cr.
or 2 credits of Health plus 1 credit of PE		3

Humanities (5 credits required)

Choose from department other than Art. Must be A-list distribution(s)*

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

CMST&230	SMALL GROUP COMMUNICATION (recommended)	5 cr.
or any Social Science distribution		

Natural Sciences (5 credits required)
(must be a lab science)

Major Area Requirements

Fine Art Foundations

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	4 cr.
ART 145	DIGITAL PHOTOGRAPHY I	3 cr.
ART 104	OBSERVATIONAL DRAWING	4 cr.
or		
ART 105	CONTEMPORARY DRAWING PRACTICES	4 cr.
or		
ART 203	THE HUMAN FIGURE I	4 cr.

Computer Graphics Technology

CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	4 cr.
CGT 103	INDESIGN PAGE LAYOUT	4 cr.

Graphic Design

ART 172	GRAPHIC DESIGN EXPLORATION	3 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 270	PUBLICATION PRODUCTION (3 credits required)	1-9 cr.
ART 271	PUBLICATION DESIGN	4 cr.
ART 272	GRAPHIC DESIGN HISTORY	5 cr.
ART 273	GRAPHIC DESIGN STUDIO II	4 cr.
CGT 214	PROFESSIONAL PRACTICES	4 cr.
or CGT 240	CAPSTONE PRACTICUM	4 cr.
or CGT 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.

Total Required Credits: 103

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

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)

Associate in Fine Arts, Studio Art Concentration (AFA)

The Art Department offers this specialized degree primarily for students intending to pursue a Bachelor of Fine Arts in Studio Art at a baccalaureate institution with competitive portfolio entry. The program also provides a suggested framework of study for those who, although they may not wish to transfer, still want a well-rounded educational experience in studio art for personal enrichment or to develop their skills as a commercial or fine artist. The degree places emphasis on fine-art foundations courses, but also allows room for the student to explore a particular studio area (painting, drawing, photography, ceramics, or metals) in depth. The culminating ART 215 Portfolio Development course will result in a documented body of work and in related written materials that the student can use to demonstrate their skills and to carry them to the next step on their pathway within the fine arts.

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 studio art and art 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.

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Quantitative Skills (5 credits required)

Social Sciences (5 credits required)

Humanities (5 credits required)

choose from AA distribution list of Humanities A-list classes, cannot be an Art class

Natural Sciences (5 credits required)

Must include a lab course

Health & Physical Education (3 credits required)

Major Area Requirements

Fine Art Foundations

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.
ART 118	TIME-BASED ART AND DESIGN	4 cr.
ART 104	OBSERVATIONAL DRAWING	4 cr.
or		
ART 105	CONTEMPORARY DRAWING PRACTICES	4 cr.
or		
ART 203	THE HUMAN FIGURE I	4 cr.
ART 215	PORTFOLIO DEVELOPMENT	3 cr.

Art History

Choose 2 from List A and 1 more from either list A or B (15 credit required)

List A

ART 220	ART HISTORY: ANCIENT TO LATE ANTIQUE	5 cr.
ART 221	ART HISTORY: MEDIEVAL-RENAISSANCE	5 cr.
ART 222	ART HISTORY: BAROQUE-MODERN	5 cr.
ART 223	ART IN THE TWENTIETH CENTURY	5 cr.

List B

ART 225	ART HISTORY: ASIAN ART	5 cr.
ART 226	SURVEY OF NON-WESTERN ART	5 cr.
ART 250	WOMEN ARTISTS THROUGH HISTORY	5 cr.
ART 272	GRAPHIC DESIGN HISTORY	5 cr.

Studio Concentration 11

Select a minimum of 11 credits from one of the following studio concentration areas:

MUST NOT INCLUDE those listed in the Foundations requirements

Metal Arts: 189, 190, 191, 295*, 296*, 297* (* required concurrent enrollment in WELD 120, 121, 122 will count towards 9 credit concentration)

Photography: 140, 141, 142, 145, 146

Ceramics: 180, 181, 182

Drawing/Painting: 104, 105, 203, 204, 257, 258, 259, 260, 261, 262

Electives 7 cr.

Select an additional 7 credits from AA distribution list of general electives

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Identify and utilize the elements and principles of design in works of art.
- Analyze works and ideas in the visual arts within appropriate historical, cultural, and stylistic contexts.
- Demonstrate technical skill, care in handling of materials, awareness of process, and purposeful execution appropriate to discipline.
- Use discipline appropriate vocabulary.
- Synthesize design skills, contextual awareness, technique and craftsmanship to create innovative, coherent works.

- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

Associate in Arts (AA) - General Transfer

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. The AA-DTA is a statewide agreement between the Washington State community and technical colleges and Washington State public universities as well as some private colleges and universities. The agreement outlines transferability of coursework and standing; in most cases students who have completed an AA-DTA will also have satisfied general education requirements at the baccalaureate institution and will have junior standing. Students should review their baccalaureate institution to see if they are part of the DTA in Washington State.

AA – DTA Degree Options:

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.

Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. They also are not used in calculating students,Äô Clark GPA. Courses completed with a grade of "D" or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or "C"is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

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 world language coursework can be used to meet Specified or General Elective requirements.

Physical Education Activity: Three (3) credits maximum in PE activity can apply toward the degree.

Other Applicable Credit Options:

Advanced Placement (AP) and/or International Baccalaureate (IB): A maximum of sixty (60) credits from AP, IB or a combination of both, can be applied to a degree.

College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits to be applied to a degree. Credits will be used to fulfill general elective requirements only.

Course Challenge: Students may use credits earned from successful course challenges toward 25% of the degree or certificate. Credit by course challenge will meet academic residency requirements.

Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate, there is no limit to the number of credits that can be applied.

Cooperative Work Experience: No more than fifteen (15) credits may be applied to the associate degree.

Special Projects: No more than fifteen (15) credits in Special Projects will be allowed toward the Associate in Arts degree.

Military Experience: Credits may earned by previous military experience. Please contact the Veterans Affairs Office at Clark College for further information. Credit awarded for military experience may be granted for up to 25% of the degree and/or certificate.

Pass/Fail Grading Option: Sixty (60) 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/Symbolic Reasoning 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/Symbolic Reasoning Skills, Humanities, Social Sciences and Natural Sciences) can be used to fulfill the Elective requirements.

3. Credit by Challenge coursework will meet academic residency requirements.

UPDATED 6/24/16

Associate in Arts - General Transfer (AA)

General Education Requirements

Communication Skills (10 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
and		
ENGL&102	ENGLISH COMPOSITION II	5 cr.
or ENGL&235	TECHNICAL WRITING	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
or ENGL 110	COMPOSITION FOR LITERATURE	5 cr.
or		
ENGL 103	ADVANCED ENGLISH COMPOSITION	3 cr.
ENGL 108	WRITING ABOUT FILM	3 cr.

or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
or ENGL 110	COMPOSITION FOR LITERATURE	5 cr.
or BUS 211	BUSINESS COMMUNICATIONS	3 cr.
and CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&220	PUBLIC SPEAKING	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Quantitative Skills/Symbolic Reasoning Skills (5 credits required)*

Choose from the courses below to complete the minimum of five (5) credits:

MATH 103	COLLEGE TRIGONOMETRY	5 cr.
MATH 105	FINITE MATHEMATICS	5 cr.
MATH 111	COLLEGE ALGEBRA	5 cr.
MATH 122	MATH FOR ELEMENTARY TEACHERS	5 cr.
MATH 123	MATH FOR ELEMENTARY TEACHERS	5 cr.
MATH 124	MATH FOR ELEMENTARY TEACHERS	5 cr.
MATH 140	CALCULUS FOR LIFE SCIENCES	6 cr.
MATH 203	DESCRIPTIVE STATISTICS	3 cr.
MATH 204	INFERENTIAL STATISTICS	3 cr.
MATH 205	DISCRETE MATHEMATICS	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
MATH&107	MATH IN SOCIETY	5 cr.
MATH&148	BUSINESS CALCULUS	5 cr.
MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.
MATH&153	CALCULUS III	5 cr.
MATH&254	CALCULUS IV	5 cr.
PHIL&117	TRADITIONAL LOGIC	5 cr.
PHIL&120	SYMBOLIC LOGIC	5 cr.

Health & Physical Education (3 credits required) 3

Option One

HLTH 100	FOOD AND YOUR HEALTH	2 cr.
or HLTH 101	HEALTH FOR ADULT LIVING	3 cr.
or HLTH 103	ENVIRONMENTAL HEALTH	2 cr.
or HLTH 104	WEIGHT AND YOUR HEALTH	2 cr.
or HLTH 206	HUMAN SEXUALITY	2 cr.
or HLTH 207	WOMEN'S HEALTH	2 cr.
or HLTH 208	MEN'S HEALTH	2 cr.
or HLTH 210	MULTICULTURAL HEALTH	2 cr.
HLTH 212	CANNABIS AND YOUR HEALTH	2 cr.
and PE activity		

Option Two

HPE 258	FITNESS-WELLNESS	3 cr.

or HPE 266	MIND BODY HEALTH	3 cr.

Oral Communication (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&220	PUBLIC SPEAKING	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Additional Requirements

COLL 101	COLLEGE ESSENTIALS: INTRODUCTION TO CLARK	2 cr.

Distribution Requirements

Humanities (15 credits required)

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 world language can be applied.

Social Sciences (15 credits required)

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 (15 credits required)

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.

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 (12 credits required)

Approved courses that apply: C, Q, HA, HB, SS, NS, SE, HE, HPE, PE, OC

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 (15 credits required)

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.

Total Required Credits: 90

**For admission to the institution, the University of Washington requires completion of the course designated Algebra II (integrated Math III: Math 098) at either the high school or community college. However, UW recognizes the new QSR as fulfilling the DTA QSR requirement.*

**To qualify for QSR, college level math and logic courses must require intermediate algebra course work (high school or college) with a grade of 2.0 or higher as a prerequisite.*

**The University of Washington accepts Mathematics for Elementary Education for elective credit, but not as meeting its QSR requirement, since UW offers no degree pathway for which it is appropriate.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

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

UPDATED 6/24/16

Associate in Science Transfer - Track 1 (AST1)

General Education Requirements

Communication Skills (10 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
or		
College-level Composition Course		5 cr.

Quantitative Skills

MATH&151	CALCULUS I	5 cr.

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.

MATH&152	CALCULUS II	5 cr.
or		
Math courses that have MATH&152 as a prerequisite		

Health & Physical Education (3 credits required)

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	FOOD AND YOUR HEALTH	2 cr.
or		
HLTH 101	HEALTH FOR ADULT LIVING	3 cr.
or		
HLTH 103	ENVIRONMENTAL HEALTH	2 cr.
or		
HLTH 104	WEIGHT AND YOUR HEALTH	2 cr.

or		
HLTH 108	HAPPINESS AND YOUR HEALTH	2 cr.
or		
HLTH 206	HUMAN SEXUALITY	2 cr.
or		
HLTH 207	WOMEN'S HEALTH	2 cr.
or		
HLTH 208	MEN'S HEALTH	2 cr.
or		
HLTH 210	MULTICULTURAL HEALTH	2 cr.
or		
HLTH 212	CANNABIS AND YOUR HEALTH	2 cr.
and		
PE activity		1

Option two:

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

Humanties [HA] [HB] and Social Sciences [SS] course(s) 15 cr.

Select five (5) credits of coursework from Humanities, 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 and Social Sciences courses must be selected from the Associate of Arts Distribution List. A maxi¬≠mum of five (5) credits of Humanities "B" list coursework may be applied.

Pre-major Program Requirements - 46 to 52 credits

MUST consult with faculty or advising to pick the correct sequences.

General Chemistry Sequence - 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.

Biology Sequence - 15 credits

BIOL&221	MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL&222	MAJORS CELL/MOLECULAR	5 cr.
BIOL&223	MAJORS ORGANISMAL PHYS	5 cr.

Physics Sequence - 15 credits

100 level:

PHYS&124	GENERAL PHYSICS LAB I	1 cr.
PHYS&125	GENERAL PHYSICS LAB II	1 cr.
PHYS&126	GENERAL PHYSICS LAB III	1 cr.

PHYS&134	GENERAL PHYSICS I	4 cr.
PHYS&135	GENERAL PHYSICS II	4 cr.
PHYS&136	GENERAL PHYSICS III	4 cr.
or		

200 level:

PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
PHYS&241	ENGINEERING PHYSICS I	4 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.

Additional mathematics course(s) - 5 or 6 credits*

MATH&153	CALCULUS III	5 cr.
or		
MATH 203	DESCRIPTIVE STATISTICS	3 cr.
and		
MATH 204	INFERENTIAL STATISTICS	3 cr.
or		
MATH&146	INTRODUCTION TO STATISTICS	5 cr.

Additional requirements for intended major - 10 to 15 credits**

BIOL 101	ENVIRONMENTAL BIOLOGY	5 cr.
BIOL 105	SMALL WORLD BIOLOGY-SEARCH FOR NEW ANTIBIOTICS	5 cr.
BIOL 139	INTRODUCTION TO WILDLIFE	3 cr.
BIOL 140	MAMMALS OF THE NORTHWEST	3 cr.
BIOL 141	BIRDS OF THE PACIFIC NORTHWEST	3 cr.
BIOL 142	FRESHWATER FISHES OF THE PACIFIC NORTHWEST	3 cr.
BIOL 143	INTRODUCTION TO FORESTRY	3 cr.
BIOL 145	REPTILES & AMPHIBIANS OF THE PACIFIC NW	3 cr.
BIOL 167	HUMAN GENETICS	3 cr.
BIOL 168	HUMAN GENETICS LABORATORY	2 cr.
BIOL 208	FIELD STUDIES IN BIOLOGY	1-10 cr.
BIOL&221	MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL&222	MAJORS CELL/MOLECULAR	5 cr.
BIOL&223	MAJORS ORGANISMAL PHYS	5 cr.
BIOL 224	FLOWERING PLANTS OF THE PACIFIC NORTHWEST	5 cr.
BIOL&241	HUMAN ANATOMY AND PHYSIOLOGY I	5 cr.
BIOL&242	HUMAN ANATOMY AND PHYSIOLOGY II	5 cr.
BIOL&251	HUMAN A & P I	5 cr.
BIOL&252	HUMAN A & P II	5 cr.
BIOL&253	HUMAN A & P III	5 cr.
BIOL&260	MICROBIOLOGY	5 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.
ENVS 218	FIELD STUDIES IN ENVIRONMENTAL SCIENCE	1-7 cr.
ENVS 221	ENVIRONMENTAL SCIENCE: PROBLEM SOLVING	5 cr.
GEOL 102	INTRO TO GEOL II: EARTH'S SURFACE PROCESSES	5 cr.
GEOL 218	FIELD STUDIES IN GEOLOGY	1-6 cr.
GEOL&101	INTRO PHYSICAL GEOLOGY	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&124	GENERAL PHYSICS LAB I	1 cr.
PHYS&125	GENERAL PHYSICS LAB II	1 cr.
PHYS&126	GENERAL PHYSICS LAB III	1 cr.
PHYS&134	GENERAL PHYSICS I	4 cr.
PHYS&135	GENERAL PHYSICS II	4 cr.
PHYS&136	GENERAL PHYSICS III	4 cr.
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
PHYS&241	ENGINEERING PHYSICS I	4 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.

Remaining Credits - 10 to 15 credits

Sufficient additional college-level credits so that the total credits earned are at least 90 term credits. these remaining credits may include prerequisites for major courses, additional major coursework, or specific general education or other university requirements as approved by the advisor. A maximum of five (5) General Elective (GE) credits will apply.

Total Required Credits: 90

**Check with chosen 4-year school*

***Preferably a 3-quarter sequence; check with chosen 4-year school regarding course selection to better prepare for major*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply scientific methodologies to develop and answer questions about the natural world.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.

- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

Associate in Science – Track 2 (AST2)

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

AST - Concentration Options:

- Atmospheric Science
- Computer Science
- Engineering
- Physics

UPDATED 6/24/16

Associate in Science – Track 2 (AST2)

General Education Requirements

Communication Skills		
ENGL&101	ENGLISH COMPOSITION I	5 cr.
Quantitative Skills/Symbolic Reasoning Skills		
MATH&151	CALCULUS I	5 cr.
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.		
and		
MATH&152	CALCULUS II	5 cr.
or		
Any Math courses that have MATH& 152 as a prerequisite		10

Health & Physical Education (3 credits required)

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	FOOD AND YOUR HEALTH	2 cr.
or		
HLTH 101	HEALTH FOR ADULT LIVING	3 cr.
or		
HLTH 103	ENVIRONMENTAL HEALTH	2 cr.
or		
HLTH 104	WEIGHT AND YOUR HEALTH	2 cr.

or		
HLTH 206	HUMAN SEXUALITY	2 cr.
or		
HLTH 207	WOMEN'S HEALTH	2 cr.
or		
HLTH 208	MEN'S HEALTH	2 cr.
or		
HLTH 210	MULTICULTURAL HEALTH	2 cr.
or		
HLTH 212	CANNABIS AND YOUR HEALTH	2 cr.
PE activity		1
Option two:		
HPE 258	FITNESS-WELLNESS	3 cr.
or		
HPE 266	MIND BODY HEALTH	3 cr.

Humanities & Social Sciences (15 credits required)

Humanities	5
Social Sciences	5
Additional Humanties [HA] or [HB] or Social Sciences [SS] course(s)	5
A maximum of five (5) credits of Humanities B (HB) coursework may be applied.	
Additional Math Courses 5 or 6 credits	

MATH&153	CALCULUS III	5 cr.
or		
MATH 203	DESCRIPTIVE STATISTICS	3 cr.
and		
MATH 204	INFERENTIAL STATISTICS	3 cr.
or		
MATH&146	INTRODUCTION TO STATISTICS	5 cr.

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

CHEM&141	GENERAL CHEMISTRY I	4 cr.
CHEM&151	GENERAL CHEMISTRY LABORATORY I	1 cr.
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
PHYS&241	ENGINEERING PHYSICS I	4 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.

PHYS&243	ENGINEERING PHYSICS III	4 cr.

Non-engineering Major

One of the Physics sequences—Consult with the baccalaureate institution to see which sequence is required—15 credits

PHYS&124	GENERAL PHYSICS LAB I	1 cr.
and		
PHYS&125	GENERAL PHYSICS LAB II	1 cr.
and		
PHYS&126	GENERAL PHYSICS LAB III	1 cr.
and		
PHYS&134	GENERAL PHYSICS I	4 cr.
and		
PHYS&135	GENERAL PHYSICS II	4 cr.
and		
PHYS&136	GENERAL PHYSICS III	4 cr.
or		
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
and		
PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
and		
PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
and		
PHYS&241	ENGINEERING PHYSICS I	4 cr.
and		
PHYS&242	ENGINEERING PHYSICS II	4 cr.
and		
PHYS&243	ENGINEERING PHYSICS III	4 cr.
CHEM&141	GENERAL CHEMISTRY I	4 cr.
CHEM&151	GENERAL CHEMISTRY LABORATORY I	1 cr.

Elective Requirements - 32 credits

Engineering Major

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.
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.

CSE 101	ENGINEERING AND COMPUTER SCIENCE ORIENTATION	1 cr.
CSE 120	INTRO TO ELECTRICAL/COMPUTING	5 cr.
CSE 121	INTRODUCTION TO C	5 cr.
CSE 215	DISCRETE STRUCTURES	5 cr.
CSE 222	INTRODUCTION TO DATA STRUCTURES	5 cr.
CSE 223	DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMING	5 cr.
CSE 224	PROGRAMMING TOOLS	5 cr.
CSE 290	SPECIAL PROJECTS	1-5 cr.
CS& 131	COMPUTER SCIENCE I C++	5 cr.
CS& 141	COMPUTER SCIENCE I JAVA	5 cr.
ENGR&104	INTRODUCTION TO DESIGN	5 cr.
ENGR&215	DYNAMICS	5 cr.
ENGR&224	THERMODYNAMICS	5 cr.
ENGR&225	MECHANICS OF MATERIALS	5 cr.
ENGR 101	ENGINEERING AND COMPUTER SCIENCE ORIENTATION	1 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 150	BASIC SOLIDWORKS	4 cr.
ENGR 221	MATERIALS SCIENCE	5 cr.
ENGR 239	MANUFACTURING PROCESSES	5 cr.
ENGR 240	APPLIED NUMERICAL METHODS FOR ENGINEERS	4 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.
MATH&254	CALCULUS IV	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.

Non-engineering Major

BIOL&100	SURVEY OF BIOLOGY	5 cr.
BIOL&221	MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL&222	MAJORS CELL/MOLECULAR	5 cr.
BIOL&223	MAJORS ORGANISMAL PHYS	5 cr.
BIOL&251	HUMAN A & P I	5 cr.
BIOL&252	HUMAN A & P II	5 cr.
BIOL&253	HUMAN A & P III	5 cr.
BIOL&260	MICROBIOLOGY	5 cr.

BIOL 101	ENVIRONMENTAL BIOLOGY	5 cr.
BIOL 164	HUMAN BIOLOGY	4 cr.
BIOL 165	HUMAN BIOLOGY LAB	1 cr.
BIOL 167	HUMAN GENETICS	3 cr.
BIOL 168	HUMAN GENETICS LABORATORY	2 cr.
BIOL 208	FIELD STUDIES IN BIOLOGY	1-10 cr.
BIOL 224	FLOWERING PLANTS OF THE PACIFIC NORTHWEST	5 cr.
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.
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.
CSE 120	INTRO TO ELECTRICAL/COMPUTING	5 cr.
CSE 121	INTRODUCTION TO C	5 cr.
CSE 215	DISCRETE STRUCTURES	5 cr.
CSE 222	INTRODUCTION TO DATA STRUCTURES	5 cr.
CSE 223	DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMING	5 cr.
CSE 224	PROGRAMMING TOOLS	5 cr.
CSE 290	SPECIAL PROJECTS	1-5 cr.
CS& 131	COMPUTER SCIENCE I C++	5 cr.
CS& 141	COMPUTER SCIENCE I JAVA	5 cr.
ENGR&104	INTRODUCTION TO DESIGN	5 cr.
ENGR&215	DYNAMICS	5 cr.
ENGR&224	THERMODYNAMICS	5 cr.
ENGR&225	MECHANICS OF MATERIALS	5 cr.
ENGR 101	ENGINEERING AND COMPUTER SCIENCE ORIENTATION	1 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 150	BASIC SOLIDWORKS	4 cr.
ENGR 221	MATERIALS SCIENCE	5 cr.
ENGR 239	MANUFACTURING PROCESSES	5 cr.
ENGR 240	APPLIED NUMERICAL METHODS FOR ENGINEERS	4 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.
ENVS 109	INTEGRATED ENVIRONMENTAL SCIENCE	5 cr.
ENVS 211	INTRO TO ENVIRONMENTAL SYSTEMS	5 cr.
ENVS 218	FIELD STUDIES IN ENVIRONMENTAL SCIENCE	1-7 cr.
ENVS 221	ENVIRONMENTAL SCIENCE: PROBLEM SOLVING	5 cr.
MATH&153	CALCULUS III	5 cr.
MATH&254	CALCULUS IV	5 cr.
MATH 103	COLLEGE TRIGONOMETRY	5 cr.
MATH 111	COLLEGE ALGEBRA	5 cr.
MATH 215	LINEAR ALGEBRA	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
PHYS&241	ENGINEERING PHYSICS I	4 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.

Total Required Credits: 90

**Check with chosen 4-year school*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Communicate with various audiences using a variety of methods. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)

Automotive Technology

Clark College has three automotive program offerings:

- Toyota T-TEN
- HiTECC (Dealer Ready)
- General Automotive (MLR)

Toyota T-TEN

Clark College is an award-winning Toyota Technical Education Network (T-TEN) training center. Our T-TEN program requires a Toyota Dealer sponsorship prior to admission. Entry into the program is yearly, beginning summer quarter; the format is a two-year program of a quarter of instruction on campus followed by a quarter of on-the-job learning. This means that for the two years that they are in the program, students alternate one quarter of full-time classroom and lab practice with one quarter as a full-time dealership apprentice.

HiTECC (Dealer Ready)

The Hannah initiative for Technician Education with Clark College, or HiTECC automotive program prepares students for maintenance and repair employment opportunities in automotive dealerships nationwide. This program provides a broad overview of technology used in modern vehicles. The program structure is patterned after the successful Toyota program and will require a dealership sponsor prior to entry. Students will participate in a cooperative work experience at a dealership while attending school.

For all programs, 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.

For additional information regarding the Automotive Technology programs, contact Michaela Loveridge, Student Recruitment and Retention Specialist, 360-992-2551 or mloveridge@clark.edu.

T-TEN Automotive (CP)

General Education Requirements

Communication Skills (3 credits required)

BTEC 106	APPLIED OFFICE ENGLISH (recommended)	3 cr.

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

AUTO 150	INTRODUCTION TO TOYOTA	5 cr.
AUTO 151	TOYOTA ELECTRICAL I	8 cr.
AUTO 152	TOYOTA ELECTRICAL II	8 cr.
AUTO 153	TOYOTA BRAKES	8 cr.
AUTO 154	TOYOTA INTERNSHIP I	8 cr.
AUTO 155	TOYOTA STEERING AND SUSPENSION	8 cr.
AUTO 156	TOYOTA ENGINE PERFORMANCE I	8 cr.
AUTO 157	TOYOTA ENGINE PERFORMANCE II	8 cr.
AUTO 250	TOYOTA CLIMATE CONTROL	8 cr.
AUTO 251	TOYOTA INTERNSHIP II	8 cr.
AUTO 252	TOYOTA ENGINE MECHANICAL	8 cr.
AUTO 253	TOYOTA MANUAL TRANSMISSION	8 cr.
AUTO 254	AUTOMATIC TRANSMISSIONS	8 cr.
AUTO 255	TOYOTA INTERNSHIP III	8 cr.

Total Required Credits: 118

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/712A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Use Toyota's 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
- Represent Toyota/Lexus and their dealers by being competent, highly trained, and ethical Toyota technicians.
- Achieve, maintain, and advance in the Toyota/Lexus technician certification process.
- Work as an effective team member in a Toyota dealership environment.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

HiTECC Automotive Technology (CP)

General Education Requirements

Communication Skills (3 credits required)

BTEC 106	APPLIED OFFICE ENGLISH	3 cr.

Computational Skills (3 credits required) 3

Human Relations (3 credits required) 3

Major Area Requirements

AUTO 160	INTRODUCTION TO DEALERSHIP OPERATIONS	5 cr.
AUTO 161	ELECTRICAL I	8 cr.
AUTO 162	ELECTRICAL II	8 cr.
AUTO 163	BRAKES	8 cr.
AUTO 164	INTERNSHIP I	8 cr.
AUTO 165	STEERING AND SUSPENSION	8 cr.
AUTO 166	ENGINE PERFORMANCE I	8 cr.
AUTO 167	INTERNSHIP I	8 cr.
AUTO 260	CLIMATE CONTROL	8 cr.
AUTO 261	INTERNSHIP II	8 cr.
AUTO 262	ENGINE MECHANICAL	8 cr.
AUTO 263	MANUAL TRANSMISSION	8 cr.
AUTO 264	AUTOMATIC TRANSMISSIONS	8 cr.
AUTO 265	INTERNSHIP III	8 cr.

Total Required Credits: 118

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/712D/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Use a 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of

concern, correct the concern, and verify proper vehicle operation.

- Represent sponsoring dealers by being competent, highly trained, and ethical dealership technicians.
- Achieve, maintain, and advance in the ASE technician certification process.

T-TEN Automotive (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I (recommended)	5 cr.

Computational Skills (5 credits required)

College-Level Math Required

MATH 103	COLLEGE TRIGONOMETRY (recommended)	5 cr.
or MATH&107	MATH IN SOCIETY (recommended)	5 cr.

Human Relations (5 credits required)

SOC& 101	INTRO TO SOCIOLOGY (recommended)	5 cr.

Major Area Requirements

AUTO 150	INTRODUCTION TO TOYOTA	5 cr.
AUTO 151	TOYOTA ELECTRICAL I	8 cr.
AUTO 152	TOYOTA ELECTRICAL II	8 cr.
AUTO 153	TOYOTA BRAKES	8 cr.
AUTO 154	TOYOTA INTERNSHIP I	8 cr.
AUTO 155	TOYOTA STEERING AND SUSPENSION	8 cr.
AUTO 156	TOYOTA ENGINE PERFORMANCE I	8 cr.
AUTO 157	TOYOTA ENGINE PERFORMANCE II	8 cr.
AUTO 250	TOYOTA CLIMATE CONTROL	8 cr.
AUTO 251	TOYOTA INTERNSHIP II	8 cr.
AUTO 252	TOYOTA ENGINE MECHANICAL	8 cr.
AUTO 253	TOYOTA MANUAL TRANSMISSION	8 cr.
AUTO 254	AUTOMATIC TRANSMISSIONS	8 cr.
AUTO 255	TOYOTA INTERNSHIP III	8 cr.

Total Required Credits: 124

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Use Toyota's 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
- Represent Toyota/Lexus and their dealers by being competent, highly trained, and ethical Toyota technicians.
- Achieve, maintain, and advance in the Toyota/Lexus technician certification process.
- Work as an effective team member in a Toyota dealership environment.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

HiTECC Automotive Technology (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Computational Skills (5 credits required)

Human Relations (5 credits required)

SOC& 101	INTRO TO SOCIOLOGY	5 cr.

Major Area Requirements

AUTO 160	INTRODUCTION TO DEALERSHIP OPERATIONS	5 cr.
AUTO 161	ELECTRICAL I	8 cr.
AUTO 162	ELECTRICAL II	8 cr.
AUTO 163	BRAKES	8 cr.
AUTO 164	INTERNSHIP I	8 cr.
AUTO 165	STEERING AND SUSPENSION	8 cr.
AUTO 166	ENGINE PERFORMANCE I	8 cr.
AUTO 167	INTERNSHIP I	8 cr.
AUTO 260	CLIMATE CONTROL	8 cr.
AUTO 261	INTERNSHIP II	8 cr.
AUTO 262	ENGINE MECHANICAL	8 cr.
AUTO 263	MANUAL TRANSMISSION	8 cr.
AUTO 264	AUTOMATIC TRANSMISSIONS	8 cr.
AUTO 265	INTERNSHIP III	8 cr.

Total Required Credits: 124

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Use a 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
- Represent sponsoring dealers by being competent, highly trained, and ethical dealership technicians.
- Achieve, maintain, and advance in the ASE technician certification process.
- Work as an effective team member in a dealership environment.

Bioengineering and Chemical Engineering

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.

Bioengineering and Chemical Pre-Engineering (AST2)

Distribution Requirements

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.

Communication Skills **5**

Clark Equivalent:

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Mathematics **10**

MRP Requirements: Calculus I, II, III – 15 credits

Differential Equations – 5 credits

Clark College Equivalents:

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.

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.
MATH&153	CALCULUS III	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.

Physics **15**

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&241	ENGINEERING PHYSICS I (requires concurrent enrollment in PHYS094)	4 cr.
and		
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II (requires concurrent enrollment in PHYS095)	4 cr.
and		
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.

PHYS&243	ENGINEERING PHYSICS III (requires concurrent enrollment in PHYS096)	4 cr.
and		
PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.

Chemistry with Lab

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 Equivalents:

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.

Humanities/Fine Arts/English and Social Science 15

Humanities 5

Social Science 5

ECON&201	MICRO ECONOMICS (recommended)	5 cr.
or		
ECON&202	MACRO ECONOMICS	5 cr.

Additional Humanities or Social Science

PHIL&120	SYMBOLIC LOGIC (recommended)	5 cr.

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 Required Credits: 90-103

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Analyze patterns of power, privilege, and inequality.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Communicate with various audiences using a variety of methods. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

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 SciencesTransfer 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.

UPDATED 6/24/16

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.

Quantitative Skills (10 credits required)

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.

Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)

CMST&220	PUBLIC SPEAKING	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.
or CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
Humanities and Social Sciences Requirements**		10

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	INFERENTIAL STATISTICS	3 cr.
PHYS&124	GENERAL PHYSICS LAB I	1 cr.
and PHYS&134	GENERAL PHYSICS I	4 cr.
PHYS&125	GENERAL PHYSICS LAB II	1 cr.
and PHYS&135	GENERAL PHYSICS II	4 cr.

PHYS&126	GENERAL PHYSICS LAB III	1 cr.
and PHYS&136	GENERAL PHYSICS III	4 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.

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 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.

Generic DTA Requirement

A. Basic Requirements

1. Communications Skills	10
Select Communication Skills [C] courses as identified and approved in the General AA DTA; may be individualized based on transfer intent.	
2. Quantitative/Symbolic Reasoning Requirement	5
Intermediate algebra proficiency is required.	

B. Distribution Requirements

1. Humanities	15
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 [HB] classes are allowed.	
2. Social Sciences	15
Select coursework from at least two (2) areas of discipline; no more than 10 credits per discipline area.	
3. Natural Sciences (minimum of 15 cr.)	15

MRP Requirements

A. Basic Requirements

1. English Composition	10
Select Communication Skills [C] courses as identified and approved in the General AA DTA; may be individualized based on transfer intent.	
2. Mathematics or Statistics	5
Calculus I	

B. Distribution Requirements

1. Humanities	15
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 [HB] classes are allowed.	
2. Social Sciences	15
Select coursework from at least two (2) areas of discipline; no more than 10 credits per discipline area.	
3. 30 quarter credits, including:	30
a. General Chemistry Sequence - 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.
b. Biology Sequence - 15 credits		
BIOL&221	MAJORS ECOLOGY/EVOLUTION	5 cr.
BIOL&222	MAJORS CELL/MOLECULAR	5 cr.
BIOL&223	MAJORS ORGANISMAL PHYS	5 cr.

C. Electives

1. 13-15 additional quarter credits	13 - 15 cr.

Students should consult with their advisor and/or intended transfer institution to select appropriate electives to reach the 90 credit minimum credits needed for degree completion.

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.
or		
MATH&146	INTRODUCTION TO STATISTICS	5 cr.
or		
MATH&148	BUSINESS CALCULUS	5 cr.
or		
MATH 140	CALCULUS FOR LIFE SCIENCES	6 cr.

B. Distribution Requirements

1. Humanities		15
2. Social Sciences		15
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

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 min.

** Check with transfer institution to see if MATH 147 will also be necessary*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Analyze patterns of power, privilege, and inequality.
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.
- Apply scientific methodologies to develop and answer questions about the natural world.
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

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.

UPDATED 6/24/16

Business Administration (AAS)

This program is designed for the student who wishes to complete a general, broad-based program. This degree requires a balanced core of business courses to introduce professional careers in business, with additional courses that can be structured to meet a student's individual needs. This program enables a student to acquire skills for entry-level positions in both the profit and non-profit sectors.

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.

Certificate of Proficiency Completed accounts for 56-60 of necessary credits.

General Education Requirements

Communication Skills (5 credits required)

CMST&220	PUBLIC SPEAKING	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Health & Physical Education (3 credits required)

Natural Sciences (3 credits required)

Humanities (3 credits required)

Computational Skills- *satisfied in the CPs.*

Human Relations - *satisfied in the CPs.*

Social Sciences - *satisfied in the CPs.*

Major Area Requirements

BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 036	ACCOUNTING APPLICATIONS	3 cr.
BUS 110	CUSTOMER SERVICE	3 cr.
BUS& 201	BUSINESS LAW	5 cr.
BUS 211	BUSINESS COMMUNICATIONS	3 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.

Additional Major Area Electives

Complete a minimum of 8 to 9 additional credits from the following areas:

- Accounting (ACCT)
- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Computer Applications (BTEC - 6 credit maximum)

and

Complete as many General Elective (GE) courses as needed to reach the total of 90 credits required by the degree.

Total Required Credits: 90-94

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses.
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- 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 required under federal and state laws.
- Use micro- and macroeconomic concepts to analyze domestic and global business situations.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)

Business DTA/MRP (AA)

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.

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.

Generic DTA Requirements

A. Basic Requirements

1. Communications Skills	10
2. Quantitative/Symbolic Reasoning Requirement	5
Intermediate algebra proficiency is required.	

B. Distribution Requirements

1. Humanities	15
2. Social Sciences	15
3. Natural Sciences	0

C. Major Requirements

1. Business courses	

D. Electives

1. Elective courses	

MRP Requirements

A. Basic Requirements

1. English Composition	10
2. Quantitative/Symbolic Reasoning Requirement	10
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.	

B. Distribution Requirements

1. Humanities	15
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
Microeconomics (5 cr.)	
Macroeconomics (5 cr.)	
Additional social science - not economics (5 cr.)	
3. Natural Sciences	15
Statistics - business statistics preferred (5 cr.)	
Physical, biological, and/or earth science, including at least one lab course (10 cr.)	

C. Major Requirements

1. Business Courses	20
Intro to Financial Accounting (5 cr.)	
Financial Accounting II (5 cr.)	
Managerial Accounting (5 cr.)	
Business Law or Introduction to Law (5 cr.)	

D. Electives

1. Electives	5

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

(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

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		9-10

*Students can apply up to 6 credits in statistics coursework toward the natural sciences requirement.

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	PRINCIPLES OF ACCOUNTING III	5 cr.
BUS& 201	BUSINESS LAW	5 cr.

D. Electives

1. Elective Courses	5

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 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)

Total Required Credits: 90 Minimum

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

Business Technology Software

Certificate and degree programs within Business Technology offer students an opportunity to become computer literate, and gain competency working with the most current business software applications as applied in a business environment. Programs emphasize the technological changes occurring in the workforce, where employment opportunities increase dramatically for those who are skilled in operating a variety of software applications within the business environment.

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

BTEC 107	BUSINESS ENGLISH	5 cr.

Computational Skills

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations

BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.

BTEC Core Requirements

BTEC 101	BEGINNING KEYBOARDING	1-3 cr.
or		
BTEC 103	REFRESHER KEYBOARDING	1-3 cr.
BTEC 114	INTRODUCTION TO OUTLOOK	1 cr.
BTEC 120	INTRODUCTION TO WORD	3 cr.
BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.

Additional Major Area Requirements

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 180	ACCESS FOR BUSINESS	3 cr.
or		
CTEC 180	INTRODUCTION TO ACCESS	3 cr.
BTEC 207	INTRODUCTION TO SHAREPOINT	3 cr.
CTEC 101	COMPUTING ESSENTIALS	2 cr.
CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.

Total Required Credits: 49

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/517A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Use common office software to solve problems and present the results in a 'business ready' manner.

Business Technology Specialist (AAT)

Many information specialist positions are available in the business world with a wide range of responsibilities. Training for higher-level positions provides skills in a variety of computer software including Internet, as well as a basic knowledge of business.

General Education Requirements

Communication Skills (5 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.

Computational Skills (5 credits required)

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

BTEC Core Requirements

BTEC 101	BEGINNING KEYBOARDING	1-3 cr.
or		
BTEC 103	REFRESHER KEYBOARDING	1-3 cr.
BTEC 120	INTRODUCTION TO WORD	3 cr.

BTEC 131	FILING AND RECORDS MANAGEMENT	3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BTEC 114	INTRODUCTION TO OUTLOOK	1 cr.

Additional Major Area Requirements (from Cert. of Proficiency)

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 180	ACCESS FOR BUSINESS	3 cr.
or		
CTEC 180	INTRODUCTION TO ACCESS	3 cr.
BTEC 207	INTRODUCTION TO SHAREPOINT	3 cr.
CTEC 101	COMPUTING ESSENTIALS	2 cr.
CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.

Additional Major Area Requirements

BTEC 211	ADMINISTRATIVE PROCEDURES	5 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
CTEC 105	INTRODUCTION TO THE INTERNET	3 cr.
CTEC 131	MICROSOFT MTA NETWORKING FUNDAMENTALS	3 cr.
CTEC 106	INFORMATION TECHNOLOGY FUNDAMENTALS	5 cr.

Electives (minimum of 15 credits of the following)

BUS 211	BUSINESS COMMUNICATIONS	3 cr.
CTEC 103	INTRODUCTION TO MAC/OS	3 cr.
CTEC 110	COMMAND LINE ESSENTIALS FOR WINDOWS AND UNIX	3 cr.
CTEC 200	PC HELP DESK WORK EXPERIENCE	1-5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
CHEM&141	GENERAL CHEMISTRY I	4 cr.
and		
CHEM&151	GENERAL CHEMISTRY LABORATORY I	1 cr.
CMST 216	INTERCULTURAL COMMUNICATION	5 cr.
HIST&146	UNITED STATES HISTORY I	5 cr.
MATH 103	COLLEGE TRIGONOMETRY	5 cr.

or		
MATH&107	MATH IN SOCIETY	5 cr.
PHIL&117	TRADITIONAL LOGIC	5 cr.
or		
PHIL&120	SYMBOLIC LOGIC	5 cr.

Total Required Credits: 90

***If you are thinking of continuing on to the EWU BA in Technology that is delivered here on campus, you may want to use any of these classes as your electives. Check with the EWU advisor for more information.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)

Business/Supervisory 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.

Supervisory Management (CP)

The Supervisory Management Certificate presents concepts that help the student understand various management theories, management functions and their interrelationships, and the competitive strategies that a business needs to establish and maintain. The student will learn and apply the concepts of planning, organizing, leading, and controlling as well as other topics essential to the structure of this basic management certificate. Additionally, the student learns the essentials of human resource management, teamwork, consensus building, technology and information management, decision making, leading change, and the value of ethics and social responsibility.

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.

General Education Requirements

Communication Skills (3 credits required)

BTEC 106	APPLIED OFFICE ENGLISH	3 cr.

Computational Skills (5 credits required)

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations (3 credits required)

BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.

Business Core Courses

BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
BTEC 100	KEYBOARDING	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.

Major Area Requirements

BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
MGMT 103	APPLIED MANAGEMENT SKILLS	3 cr.
MGMT 110	CREATIVE PROBLEM SOLVING	3 cr.
MGMT 128	HUMAN RESOURCES MANAGEMENT	3 cr.
MGMT 199	COOPERATIVE WORK EXPERIENCE **	1-5 cr.

Additional Area Requirements

Select a minimum of 9 credits from the Management courses

Total Required Credits: 54

***Minimum of 5 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 http://www.clark.edu/academics/catalog/gainful-employment/545A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Effectively manage people and resources to meet organizational and instructional goals.
- Understand and apply managerial techniques for decision making, problem solving, and managing change.
- Apply the understating of human resources issues and functions, identifying applicable laws.

Supervisory Management (AAS)

The Supervisory Management Associate of Applied Science degree emphasizes the important role required of supervisory managers of getting work completed by leading, managing, and motivating people This comprehensive training program includes courses that deal with solutions to supervisory problems regularly encountered on the job. Current and potential supervisors learn and apply the basic principles of business management to increase and broaden their on-the-job performance levels and to advance into more responsible career 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.

Certificate of Proficiency Completed accounts for 56-60 of necessary credits

General Education Requirements

Communication Skills (5 credits required)

CMST&220	PUBLIC SPEAKING	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Health and Physical Education (3 credits required) 3

Humanities (3 credits required)

Natural Sciences (3 credits required) 3

Computational Skills- *satisfied in the CPs.*

Human Relations- *satisfied in the CPs.*

Social Science- *satisfied in the CPs.*

Major Area Requirements

BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 201	BUSINESS LAW	5 cr.
BUS 211	BUSINESS COMMUNICATIONS	3 cr.
or		
MGMT 107	SUPERVISORY COMMUNICATION I, WRITTEN	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.

Complete a minimum of 5 to 6 additional credits from the following areas:

- Accounting (ACCT)
- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Computer Applications (BTEC - 6 credit maximum)

and

Complete as many General Elective (GE) courses as needed to reach the total of 90 credits required by the degree.

Total Required Credits: 91-98

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- 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.
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Effectively manage people and resources to meet organizational and institutional goals.

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.

Quantitative Skills (10 credits required)

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.

Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&220	PUBLIC SPEAKING	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Pre-Major Program 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&241	ENGINEERING PHYSICS I	4 cr.
and PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
and PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.
and PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.

Science 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.

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.
or Foreign 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.*

Computer Aided Design & Drafting Technology

Drafting and design activities are central to the 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 (CP) and Associate of Applied Science (AAS) 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 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&235	TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations (3 credits required)

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
CADD 102	CADD CAREERS	1 cr.
CADD 110	BASIC SKETCHUP	4 cr.
CADD 140	BASIC AUTOCAD	4 cr.
or ENGR 140	BASIC AUTOCAD	4 cr.
CADD 141	ARCHITECTURAL DRAFTING 1	4 cr.
CADD 142	INTERMEDIATE AUTOCAD	2 cr.
CADD 170	BASIC REVIT: RESIDENTIAL	4 cr.
CADD 171	REVIT: COMMERCIAL	4 cr.
CADD 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-6 cr.
CADD 207	PRESENTATION GRAPHICS	4 cr.
CADD 210	ARCHITECTURAL DRAFTING 2	3 cr.

CADD 214	AUTOCAD CUSTOMIZATION	3 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
	(formerly ENGR 112, then ENGR&114)	

Total Required Credits: 54

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/783A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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.
- Create and manipulate architectural drawings and models in a multitude of CADD applications (core CADD skills).
- Communicate with various audiences using a variety of methods. (GE)

Civil Computer-Aided Drafting/Design (CP)

General Education Requirements

Communication Skills (3 credits required)

ENGL&235	TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations (3 credits required)

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
CADD 102	CADD CAREERS	1 cr.
CADD 130	BASIC MICROSTATION	4 cr.
CADD 140	BASIC AUTOCAD	4 cr.
or ENGR 140	BASIC AUTOCAD	4 cr.
CADD 142	INTERMEDIATE AUTOCAD	2 cr.
CADD 143	CIVIL DRAFTING 1 WITH CIVIL 3D	4 cr.
CADD 170	BASIC REVIT: RESIDENTIAL	4 cr.
CADD 171	REVIT: COMMERCIAL	4 cr.
CADD 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-6 cr.
CADD 207	PRESENTATION GRAPHICS	4 cr.
CADD 214	AUTOCAD CUSTOMIZATION	3 cr.

CADD 230	CIVIL DRAFTING 2	3 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
	(formerly ENGR 112, then ENGR&114)	
SURV 100	INTRODUCTION TO GPS	2 cr.
SURV 102	FUNDAMENTALS OF SURVEY	2 cr.

Total Required Credits: 58

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/798C/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Create and manipulate civil drawings and models in a multitude of CADD applications (core CADD 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Fully annotate and print civil drawings (core drafting skills).

Mechanical Computer-Aided Drafting/Design (CP)

General Education Requirement

Communication Skills (3 credits required)

ENGL&235	TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations (3 credits required)

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
CADD 102	CADD CAREERS	1 cr.
CADD 140	BASIC AUTOCAD	4 cr.
or ENGR 140	BASIC AUTOCAD	4 cr.
CADD 142	INTERMEDIATE AUTOCAD	2 cr.
CADD 150	BASIC SOLIDWORKS	4 cr.
or ENGR 150	BASIC SOLIDWORKS	4 cr.
CADD 154	MECHANICAL DRAFTING 1 WITH SOLIDWORKS	4 cr.
CADD 155	INTERMEDIATE SOLIDWORKS - TOP DOWN DESIGN	4 cr.
CADD 160	INTRODUCTION TO CAM	2 cr.

CADD 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-6 cr.
CADD 207	PRESENTATION GRAPHICS	4 cr.
CADD 215	TECHNICAL STATICS & STRENGTHS	3 cr.
CADD 216	INTEGRATED COMPUTATIONAL DESIGN	3 cr.
CADD 240	MECHANICAL DRAFTING 2	3 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
	(formerly ENGR 112, then ENGR&114)	
ENGR 115	GEOMETRIC DIMENSIONING AND TOLERANCING	2 cr.

Total Required Credits: 57

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/782B/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate interpersonal/human relations skills. (GE)
- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Create and manipulate mechanical drawings and models in a multitude of CADD applications (core CADD skills).
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

Architectural Computer-Aided Drafting/Design (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
ENGL&235	TECHNICAL WRITING	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

Social Sciences (3 credits required)

Natural Sciences (3 credits required) 5

Must earn 5 credits from PHYS, PHSC, or ENVS courses.

Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
CADD 102	CADD CAREERS	1 cr.

CADD 110	BASIC SKETCHUP	4 cr.
CADD 120	BASIC RHINOCEROS	4 cr.
CADD 140	BASIC AUTOCAD	4 cr.
or ENGR 140	BASIC AUTOCAD	4 cr.
CADD 141	ARCHITECTURAL DRAFTING 1	4 cr.
CADD 142	INTERMEDIATE AUTOCAD	2 cr.
CADD 170	BASIC REVIT: RESIDENTIAL	4 cr.
CADD 171	REVIT: COMMERCIAL	4 cr.
CADD 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-6 cr.
CADD 207	PRESENTATION GRAPHICS	4 cr.
CADD 210	ARCHITECTURAL DRAFTING 2	3 cr.
CADD 214	AUTOCAD CUSTOMIZATION	3 cr.
CADD 299	CADD CAPSTONE PRACTICUM	5 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
ART 104	OBSERVATIONAL DRAWING	4 cr.
ART 105	CONTEMPORARY DRAWING PRACTICES	4 cr.

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.
- Demonstrate core architectural CADD and drafting skills, and professionalism and employability, through working with a client on a capstone project.

Civil Computer-Aided Drafting/Design (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
ENGL&235	TECHNICAL WRITING	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required) **5**

Must earn 5 credits from PHYS, PHSC, or ENVS courses.

Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
CADD 102	CADD CAREERS	1 cr.
CADD 120	BASIC RHINOCEROS	4 cr.
CADD 130	BASIC MICROSTATION	4 cr.
CADD 140	BASIC AUTOCAD	4 cr.
or ENGR 140	BASIC AUTOCAD	4 cr.
CADD 142	INTERMEDIATE AUTOCAD	2 cr.
CADD 143	CIVIL DRAFTING 1 WITH CIVIL 3D	4 cr.
CADD 170	BASIC REVIT: RESIDENTIAL	4 cr.
CADD 171	REVIT: COMMERCIAL	4 cr.
CADD 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-6 cr.
CADD 207	PRESENTATION GRAPHICS	4 cr.
CADD 214	AUTOCAD CUSTOMIZATION	3 cr.
CADD 230	CIVIL DRAFTING 2	3 cr.
CADD 299	CADD CAPSTONE PRACTICUM	5 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
SURV 100	INTRODUCTION TO GPS	2 cr.
SURV 102	FUNDAMENTALS OF SURVEY	2 cr.
SURV 125	INTRODUCTION TO GIS	3 cr.
SURV 250	ARC GIS I	3 cr.

Total Required Credits: 92

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.
- Demonstrate core civil CADD and drafting skills, and professionalism and employability, through working with a client on a capstone project.

Mechanical Computer-Aided Drafting/Design (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
ENGL&235	TECHNICAL WRITING	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations (3 credits required)

HDEV 198	PORTFOLIO DEVELOPMENT	1 cr.
HDEV 200	PROFESSIONAL DEVELOPMENT	2 cr.

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required) 5

Must earn 5 credits from PHYS, PHSC, or ENVS courses.

Major Area Requirements

CADD 101	CADD ORIENTATION	1 cr.
CADD 102	CADD CAREERS	1 cr.
CADD 120	BASIC RHINOCEROS	4 cr.
CADD 140	BASIC AUTOCAD	4 cr.
or ENGR 140	BASIC AUTOCAD	4 cr.
CADD 142	INTERMEDIATE AUTOCAD	2 cr.
CADD 150	BASIC SOLIDWORKS	4 cr.
or ENGR 150	BASIC SOLIDWORKS	4 cr.
CADD 154	MECHANICAL DRAFTING 1 WITH SOLIDWORKS	4 cr.
CADD 155	INTERMEDIATE SOLIDWORKS - TOP DOWN DESIGN	4 cr.
CADD 160	INTRODUCTION TO CAM	2 cr.
CADD 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-6 cr.
CADD 207	PRESENTATION GRAPHICS	4 cr.
CADD 215	TECHNICAL STATICS & STRENGTHS	3 cr.
CADD 216	INTEGRATED COMPUTATIONAL DESIGN	3 cr.
CADD 240	MECHANICAL DRAFTING 2	3 cr.
CADD 299	CADD CAPSTONE PRACTICUM	5 cr.
ENGR&104	INTRODUCTION TO DESIGN	5 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
ENGR 115	GEOMETRIC DIMENSIONING AND TOLERANCING	2 cr.

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.

- Demonstrate core mechanical CADD and drafting skills, and professionalism and employability through working with a client on a capstone project.

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.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

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.

Generic Requirements

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.

A. Basic Requirements

1. Communication Skills 5

ENGL&101	ENGLISH COMPOSITION I (MRP Requirement)	5 cr.

2. Mathematics 10

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.

MRP Requirements: Calculus I, II, III – 15 credits

Differential Equations – 5 credits

Linear Algebra – 5 credits

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.

Clark College Equivalents:

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 15

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&241	ENGINEERING PHYSICS I (requires concurrent enrollment in PHYS094)	4 cr.
and		
PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II (requires concurrent enrollment in PHYS095)	4 cr.
and		
PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&243	ENGINEERING PHYSICS III (requires concurrent enrollment in PHYS096)	4 cr.
and		
PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.

4. Chemistry with Laboratory	5

Clark College Equivalents:

CHEM&141	GENERAL CHEMISTRY I	4 cr.
CHEM&151	GENERAL CHEMISTRY LABORATORY I	1 cr.

5. Required Major Courses

Electrical Circuits Clark College Equivalents:

ENGR&204	ELECTRICAL CIRCUITS	5 cr.

Computer Programming Clark College Equivalents:

CSE 121	INTRODUCTION TO C	5 cr.

B. Distribution Requirements

1. Humanities		5
2. Social Science		5
ECON&201	MICRO ECONOMICS (recommended)	5 cr.
or		
ECON&202	MACRO ECONOMICS (recommended)	5 cr.
3. Additional Humanities or Social Science		5
PHIL&120	SYMBOLIC LOGIC (recommended)	5 cr.

C. Electives

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

Total Required Credits: 95-104

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

Computer Graphics Technology

The Computer Graphics Technology (CGT) program at Clark College provides hands-on learning with technologies used to create visual communications, digital imagery, integrated media, and applied technology 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. Please see our Career Pathway flowcharts for various job titles in the web and graphic design industry.

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 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.

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		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

CTEC 122	HTML FUNDAMENTALS	4 cr.

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.
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 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	4 cr.
CGT 103	INDESIGN PAGE LAYOUT	4 cr.

Graphic Design

ART 172	GRAPHIC DESIGN EXPLORATION	3 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 270	PUBLICATION PRODUCTION (3 credits required)	1-9 cr.
ART 271	PUBLICATION DESIGN	4 cr.
ART 273	GRAPHIC DESIGN STUDIO II	4 cr.
CGT 214	PROFESSIONAL PRACTICES	4 cr.
or CGT 240	CAPSTONE PRACTICUM	4 cr.
or CGT 199	COOPERATIVE WORK EXPERIENCE (4 credits required)	1-5 cr.

Total Required Credits: 72

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/731A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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.
- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Implement tools and technology to realize visual ideas.

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, multimedia 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		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

CTEC 122	HTML FUNDAMENTALS	4 cr.

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	4 cr.

Computer Graphics Technology

CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	4 cr.
CGT 104	WEB MULTIMEDIA CONTENT I	4 cr.

CGT 201	WEB VIDEO PRODUCTION	4 cr.

Graphic Design

ART 215	PORTFOLIO DEVELOPMENT	3 cr.

Web Design

CTEC 160	WORDPRESS I	5 cr.
CGT 105	USER EXPERIENCE DESIGN	4 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	4 cr.
or CGT 240	CAPSTONE PRACTICUM	4 cr.
or CGT 199	COOPERATIVE WORK EXPERIENCE (4 credits required)	1-5 cr.

Total Required Credits: 68

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/524B/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply fine art theory and design purposeful projects relevant to audience needs.
- Use written, verbal and visual means to effectively present and communicate web design projects.
- Demonstrate work and business ethics in web design practice.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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.

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		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.

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	4 cr.

Computer Graphics Technology

CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 102	ILLUSTRATOR VECTOR GRAPHICS	4 cr.
CGT 103	INDESIGN PAGE LAYOUT	4 cr.
CGT 104	WEB MULTIMEDIA CONTENT I	4 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.

Graphic Design

ART 172	GRAPHIC DESIGN EXPLORATION	3 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 270	PUBLICATION PRODUCTION (3 credits required)	1-9 cr.
ART 273	GRAPHIC DESIGN STUDIO II	4 cr.

Web Design

CTEC 160	WORDPRESS I	5 cr.
CTEC 122	HTML FUNDAMENTALS	4 cr.
CGT 105	USER EXPERIENCE DESIGN	4 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	4 cr.
or CGT 240	CAPSTONE PRACTICUM	4 cr.
or CGT 199	COOPERATIVE WORK EXPERIENCE	1-5 cr.

Total Required Credits: 99

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.

- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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.

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.

Quantitative Skills (10 credits required)

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.

Health & Physical Education (3 credits required)

Humanities & Social Science (15 credits required)(HA, HB, SS)

Pre-Major Program Requirements- 25 credits

MATH&153	CALCULUS III	5 cr.
PHYS&241	ENGINEERING PHYSICS I	4 cr.
and PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
and PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.
and PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
Additional Science		5

Computer Science Electives

CSE 120	INTRO TO ELECTRICAL/COMPUTING	5 cr.
CSE 121	INTRODUCTION TO C	5 cr.
CS& 131	COMPUTER SCIENCE I C++	5 cr.
CS& 141	COMPUTER SCIENCE I JAVA	5 cr.
CSE 222	INTRODUCTION TO DATA STRUCTURES	5 cr.
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 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 an AAT degree in Web Development, which focuses on preparing students for careers that feature web programming skills.

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 (NTEC), 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)

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.
or ENGL&101	ENGLISH COMPOSITION I	5 cr.

Computational Skills (3 credits required)

MATH 030	PRE-ALGEBRA	5 cr.

Human Relations (3 credits required)

CMST&230	SMALL GROUP COMMUNICATION	5 cr.
or CMST&210	INTERPERSONAL COMMUNICATION	5 cr.

Major Area Requirements

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
CTEC 101	COMPUTING ESSENTIALS	2 cr.
CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.
CTEC 103	INTRODUCTION TO MAC/OS	3 cr.
CTEC 104	PC SUPPORT CUSTOMER SERVICE SKILLS	3 cr.
CTEC 106	INFORMATION TECHNOLOGY FUNDAMENTALS	5 cr.
CTEC 110	COMMAND LINE ESSENTIALS FOR WINDOWS AND UNIX	3 cr.
NTEC 103	IP SUBNETTING	2 cr.
CTEC 131	MICROSOFT MTA NETWORKING FUNDAMENTALS	3 cr.
and NTEC 132	WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS	3 cr.
or NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
CTEC 200	PC HELP DESK WORK EXPERIENCE (2-5 credits required)	1-5 cr.
CTEC 213	COMPTIA A+ FUNDAMENTALS	4 cr.
CTEC 214	COMPTIA A+ OPERATING SYSTEMS & NETWORKING	4 cr.

Total Required Credits: 51-54

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/518A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Analyze the ethical and legal issues surrounding access to and use of technology.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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.

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		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

MATH 030	PRE-ALGEBRA	5 cr.

Health & Physical Education (3 credits required)

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**

Natural Sciences (3 credits required)

Major Area Requirements

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
and		
CTEC 106	INFORMATION TECHNOLOGY FUNDAMENTALS	5 cr.
or CTEC 205	INTRODUCTION TO MANAGED INFORMATION SYSTEMS	5 cr.

CTEC 101	COMPUTING ESSENTIALS	2 cr.
CTEC 103	INTRODUCTION TO MAC/OS	3 cr.
CTEC 104	PC SUPPORT CUSTOMER SERVICE SKILLS	3 cr.
CTEC 105	INTRODUCTION TO THE INTERNET	3 cr.
CTEC 110	COMMAND LINE ESSENTIALS FOR WINDOWS AND UNIX	3 cr.
NTEC 103	IP SUBNETTING	2 cr.
CTEC 112	PROGRAMMING ESSENTIALS	5 cr.
or		
CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.
CTEC 131	MICROSOFT MTA NETWORKING FUNDAMENTALS	3 cr.
and NTEC 132	WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS	3 cr.
or NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
CTEC 200	PC HELP DESK WORK EXPERIENCE (3-5 credits required)	1-5 cr.
CTEC 295	CAPSTONE EXPERIENCE	3 cr.
CTEC 213	COMPTIA A+ FUNDAMENTALS	4 cr.
CTEC 214	COMPTIA A+ OPERATING SYSTEMS & NETWORKING	4 cr.

Related Electives

Students must complete at least 7-11 credits approved related electives to meet 90 credits:

BTEC 120	INTRODUCTION TO WORD	3 cr.
BTEC 122	WORD FOR BUSINESS	5 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
BTEC 170	EXCEL FOR BUSINESS	3 cr.
BTEC 180	ACCESS FOR BUSINESS	3 cr.
BTEC 195	E-COMMERCE: INTRO TO BUSINESS ON THE WEB	3 cr.
CGT 105	USER EXPERIENCE DESIGN	4 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.
CTEC 102	INTRODUCTION TO WINDOWS	3 cr.
CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 122	HTML FUNDAMENTALS	4 cr.
CTEC 133	MICROSOFT MTA SECURITY FUNDAMENTALS	5 cr.
CTEC 134	MICROSOFT MTA DATABASE ADMIN	5 cr.
CTEC 135	MICROSOFT MTA SOFTWARE DEVELOPMENT WITH C#	5 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 141	UNIX SYSTEM ADMINISTRATION	5 cr.
CTEC 145	WEB SERVER TECHNOLOGY	5 cr.
CTEC 160	WORDPRESS I	5 cr.
CTEC 165	BUSINESS WEB PRACTICES	4 cr.
CTEC 181	INTRODUCTION TO DATABASE DESIGN USING ACCESS	5 cr.

NTEC 125	INFORMATION SECURITY FUNDAMENTALS	3 cr.
NTEC 142	CLOUD COMPUTING FUNDAMENTALS	3 cr.
NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
NTEC 222	CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS	6 cr.
NTEC 223	CISCO CCNA 3: SCALING NETWORKS	6 cr.
NTEC 224	CISCO CCNA 4: CONNECTING NETWORKS	6 cr.
NTEC 225	CISCO CCNA SECURITY	6 cr.
NTEC 234	MICROSOFT SERVER ADMINISTRATOR 1	6 cr.
NTEC 235	MICROSOFT SERVER ADMINISTRATOR 2	6 cr.
NTEC 236	MICROSOFT SERVER ADMINISTRATOR 3	6 cr.
NTEC 242	DATACENTER VIRTUALIZATION TECHNOLOGY	6 cr.

Total Required Credits: 90-93

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Install, configure, and maintain hardware and software to bring the system to an optimal operational level for the end user.
- Demonstrate progress toward healthier behaviors. (GE)
- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Demonstrate broad based understanding of concepts, skills and issues relating to underlying technology and current industry standards involving computer and information technology.

Web Development (AAT)

The Web Development AAT degree provides students with a foundational and employable skill set in web programming and development technologies as well experience and skills in web design and media associated with the World Wide Web. Essential skills are developed through practical hands-on experience, real client project work, a focus on professional skills and building a portfolio of work.

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I (recommended)	5 cr.
or		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills (5 credits required)

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING (recommended)	5 cr.

Human Relations (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION (recommended)	5 cr.

Major Area Requirements

Web Foundations

CTEC 160	WORDPRESS I	5 cr.
ENGL 160	WRITING FOR THE WEB	3 cr.
CTEC 122	HTML FUNDAMENTALS	4 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.

Web Media and Supportive Technologies

CGT 101	PHOTOSHOP RASTER GRAPHICS	4 cr.
CGT 104	WEB MULTIMEDIA CONTENT I	4 cr.
or		
CGT 201	WEB VIDEO PRODUCTION	4 cr.
CTEC 134	MICROSOFT MTA DATABASE ADMIN	5 cr.

Web Design

CGT 105	USER EXPERIENCE DESIGN	4 cr.
CGT 205	WEB DESIGN I	4 cr.
CGT 206	WEB DESIGN II	4 cr.
CTEC 165	BUSINESS WEB PRACTICES	4 cr.
CGT 214	PROFESSIONAL PRACTICES	4 cr.
or CTEC 199	COOPERATIVE WORK EXPERIENCE (4 credits required)	1-5 cr.
or CGT 240	CAPSTONE PRACTICUM	4 cr.

Web Development

CTEC 260	WORDPRESS II	5 cr.
or		
CTEC 135	MICROSOFT MTA SOFTWARE DEVELOPMENT WITH C#	5 cr.
CTEC 126	JAVASCRIPT	5 cr.
CTEC 127	PHP WITH SQL I	5 cr.
CTEC 227	PHP WITH SQL II	5 cr.
CTEC 228	API AND ADVANCED INTEGRATION	5 cr.
CTEC 145	WEB SERVER TECHNOLOGY	5 cr.

Total Required Credits: 91

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Web Foundations: Write, organize and publish well written content and code to engage web communities for personal and professional research, marketing, and interaction.
- Web Media: Create original visual graphics, audio, and integrated media design for the web.
- Web Design: Develop interactive websites from concept to design to execution with that provide an effective user experience and meet client needs.

- Web Development: Plan and execute industry standard code, web scripting, and server strategies to capture, integrate and manage data.
- Professional Practices: Demonstrate professional skills and business ethics to communicate and collaborate in various work environments.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

Dental Hygiene

A career as a hygienist offers a wide range of opportunities. Services provided by dental hygienists include patient assessment procedures, managing and treating periodontal conditions, placing and finishing dental restorative materials, applying preventive materials to the teeth, teaching patients appropriate oral hygiene to maintain oral health, nutrition counseling, teeth whitening services, performing documentation and office management activities, developing and implementing community oral health programs, and more.

The Clark College 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 a Bachelor of Applied Science degree. Students who successfully complete 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 the Clark College Firstenburg Dental Hygiene Education and Care Center under the supervision of licensed dentists and dental hygienists.

Application Process & Preliminary Requirements

The Dental Hygiene program is a seven-quarter clinical program with preliminary requirements that must be satisfied to qualify to apply and prior to program entry. Admission to the Dental Hygiene program is limited and competitive, and Clark College reserves the right to determine admissions status. Please note: completion of the preliminary requirements does not guarantee entrance into the Dental Hygiene program. To meet preliminary entrance requirements, candidates must:

• Complete the Clark College Application for Admission and Statement of Intent forms. Return to Enrollment Services in Gaiser Hall with the non-refundable admission fee and program application fee (amounts subject to change). For the current fee amounts, please visit the Dental Hygiene Website at www.clark.edu/dentalhygiene.

• The application for Clark College's Dental Hygiene program is January 8th of every year for entry into the fall quarter. Students MUST have no more than 10 credits of preliminary coursework remaining to complete following the end of winter quarter to qualify for selection into the fall class. Preliminary Course Requirements are listed in the degree below.

• Submit ALL official college transcripts from ALL previous colleges attended to the Credential Evaluations Office for complete transcript evaluation, and continue to send updated transcripts quarterly as additional courses are completed. The most recent educational experience will be used to meet admission criteria.

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.

Students 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 published admissions criteria for that year.

Selection criteria are subject to change. For complete, updated information, please refer to the Dental Hygiene

program website 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.

Program Progression

In order to progress from one course or quarter to the next after beginning the Dental Hygiene program, students must achieve a grade of 2.0 or higher in all required courses and maintain a cumulative GPA of 2.0 or higher.

Dental Hygiene (BAS)

Preliminary Coursework REQUIRED for acceptance

All preliminary courses must be completed with a 2.0 or above AND obtain minimum APPLICABLE and SCIENCE grade point averages (GPA) of 2.60

Communication Skills (10 credits required)		
ENGL&101	ENGLISH COMPOSITION I *	5 cr.
*must be completed by end of winter quarter of application year		
ENGL&102	ENGLISH COMPOSITION II	5 cr.
or		
ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
Humanities (10 credits required)		
CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&220	PUBLIC SPEAKING	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.
Social Sciences (10 credits required)		
PSYC&100	GENERAL PSYCHOLOGY	5 cr.
SOC& 101	INTRO TO SOCIOLOGY	5 cr.
College-level Math (5 credits required)		
MATH&146	INTRODUCTION TO STATISTICS (recommended)	5 cr.
Natural Sciences (30 credits required)		
All science courses must be seven (7) years current upon program entry.		
BIOL&251	HUMAN A & P I	5 cr.
BIOL&252	HUMAN A & P II	5 cr.
BIOL&253	HUMAN A & P III	5 cr.
or		
BIOL&241	HUMAN ANATOMY AND PHYSIOLOGY I	5 cr.
BIOL&242	HUMAN ANATOMY AND PHYSIOLOGY II	5 cr.

BIOL&260	MICROBIOLOGY	5 cr.
CHEM&121	INTRO TO CHEMISTRY: PRE-HEALTH	5 cr.
CHEM&131	INTRO TO ORGANIC/BIOCHEM	5 cr.
NUTR&101	NUTRITION	3 cr.

Physical Education (1 credits required)**

**MUST be fitness/activity course

Junior Year

Fall Quarter

DH 282	PHARMACOLOGY I	1 cr.
DH 283	CLINICAL DENTAL HYGIENE TECHNIQUES I	6 cr.
DH 284	ORAL MEDICINE	2 cr.
DH 285	PERIODONTICS I	3 cr.
DH 286	DENTAL ANATOMY	3 cr.
DH 292	INTRODUCTION TO DIGITAL MANAGEMENT SYSTEMS	1 cr.

Winter Quarter

DH 303	HEAD AND NECK ANATOMY	3 cr.
DH 313	CLINICAL DENTAL HYGIENE TECHNIQUES II	5 cr.
DH 323	ORAL RADIOLOGY I	3 cr.
DH 353	ETHICS AND THE PROFESSION	1 cr.
DH 373	CARIOLOGY	2 cr.
DH 383	PHARMACOLOGY II	1 cr.

Spring Quarter

DH 304	EDUCATIONAL THEORY AND APPLICATION	2 cr.
DH 314	CLINICAL DENTAL HYGIENE TECHNIQUES III	5 cr.
DH 324	ORAL RADIOLOGY II	1 cr.
DH 344	GENERAL AND ORAL PATHOLOGY	3 cr.
DH 364	LOCAL ANESTHESIA & PAIN CONTROL	4 cr.
DH 384	PHARMACOLOGY III	1 cr.

Senior Year

Summer Quarter

DH 301	INTRODUCTION TO DENTAL MATERIALS/ASSISTING	3 cr.
DH 321	CLINICAL DENTAL HYGIENE TECHNIQUES IV	4 cr.
DH 331	ORAL RADIOLOGY III	2 cr.
DH 431	RESTORATIVE DENTISTRY I	2 cr.
DH 451	SPECIAL NEEDS POPULATIONS I	1 cr.
DH 471	NITROUS OXIDE SEDATION	1 cr.

Fall Quarter

DH 402	DENTAL PUBLIC HEALTH - RESEARCH METHODS I	2 cr.
DH 412	CLINICAL DENTAL HYGIENE TECHNIQUES V	9 cr.
DH 432	RESTORATIVE DENTISTRY II	5 cr.

DH 452	SPECIAL NEEDS POPULATIONS II	1 cr.
DH 472	PERIODONTICS II	2 cr.

Winter Quarter

DH 403	DENTAL PUBLIC HEALTH - RESEARCH METHODS II	2 cr.
DH 413	CLINICAL DENTAL HYGIENE TECHNIQUES VI	9 cr.
DH 433	RESTORATIVE DENTISTRY III	4 cr.
DH 453	SPECIAL NEEDS POPULATIONS III	1 cr.
DH 473	PERIODONTICS III	2 cr.

Spring Quarter

DH 404	DENTAL PUBLIC HEALTH - RESEARCH METHODS III	1 cr.
DH 414	CLINICAL DENTAL HYGIENE TECHNIQUES VII	10 cr.
DH 434	RESTORATIVE DENTISTRY IV	3 cr.
DH 484	CAPSTONE	3 cr.

Total Required Credits: 180-181

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Integrate the roles of clinician, educator, advocate, manager, and researcher to prevent oral diseases and promote health.
- 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 ADHA 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 licensing exams.
- Demonstrate the skills necessary to stay current in the profession with a rigorous and robust emphasis on the study of current research.

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 Technician (CP)

General Education Requirements

Communication Skills

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended)	5 cr.

Human Relations

CMST&230	SMALL GROUP COMMUNICATION	5 cr.
or CMST&210	INTERPERSONAL COMMUNICATION	5 cr.

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 096	CUMMINS ENGINES	3 cr.
DIES 135	INDUSTRIAL HYDRAULICS	3 cr.

Total Required Credits: 110

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/775A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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 powered Industry.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)

- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Evaluate and use technical information from a variety of resources.

Diesel Technologies (AAS)

Suggested Extra Courses (for preparation into trade)

BUS 110	CUSTOMER SERVICE	3 cr.
DIES 096	CUMMINS ENGINES	3 cr.
DIES 135	INDUSTRIAL HYDRAULICS	3 cr.

General Education Requirements

Communication Skills (6 credits required)*

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.

Human Relations

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)

**ENGL 097 does not meet the Communication Skills General Education Requirement for the AAS degree.*

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.

Total Required Credits: 120

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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 powered Industry.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

Diesel Technologies (AAT)

General Education Requirements

Communication Skills

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.

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.
DIES 096	CUMMINS ENGINES	3 cr.
DIES 135	INDUSTRIAL HYDRAULICS	3 cr.

Total Required Credits: 110

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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 powered Industry.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Evaluate and use technical information from a variety of resources.

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.

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.

State Initial Early Childhood Education Certificate (statewide) (CC)

Major Area Requirements

ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.
ECED&120	PRACTICUM-NURTURING REL	2 cr.

Total Required Credits: 12

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Early Childhood Education Certificate of Specialization-General (statewide) (CC)

*CC-State Short Early Childhood Education Certificate of Specialization-General (statewide)

Major Area Requirements

ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.
ECED&120	PRACTICUM-NURTURING REL	2 cr.
EDUC&115	CHILD DEVELOPMENT	5 cr.
EDUC&130	GUIDING BEHAVIOR	3 cr.

Total Required Credits: 20

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-Infants and Toddlers (statewide) (CC)

Major Area Requirements

ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.
ECED&120	PRACTICUM-NURTURING REL	2 cr.
EDUC&115	CHILD DEVELOPMENT	5 cr.
ECED&132	INFANTS/TODDLERS CARE	3 cr.

Total Required Credits: 20

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are

measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-School Age Care (statewide) (CC)

Major Area Requirements

ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.
ECED&120	PRACTICUM-NURTURING REL	2 cr.
EDUC&115	CHILD DEVELOPMENT	5 cr.
EDUC&136	SCHOOL AGE CARE	3 cr.

Total Required Credits: 20

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-Family Child Care (statewide) (CC)

Major Area Requirements

ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.
ECED&120	PRACTICUM-NURTURING REL	2 cr.
EDUC&115	CHILD DEVELOPMENT	5 cr.
ECED&134	FAMILY CHILD CARE	3 cr.

Total Required Credits: 20

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-Administration (statewide) (CC)

Major Area Requirements

ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.

ECED&120	PRACTICUM-NURTURING REL	2 cr.
EDUC&115	CHILD DEVELOPMENT	5 cr.
ECED&139	ADMIN EARLY LRNG PROG	3 cr.

Total Required Credits: 20

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.

State Early Childhood Education Certificate (statewide) (CP)

General Education Requirements

Communication Skills

ENGL 098	WRITING FUNDAMENTALS	5 cr.
or		
ENGL 103	ADVANCED ENGLISH COMPOSITION	3 cr.
or		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.
or		
ENGL&101	ENGLISH COMPOSITION I	5 cr.
or		
ENGL&102	ENGLISH COMPOSITION II	5 cr.
or		
ENGL&235	TECHNICAL WRITING	5 cr.

Computational Skills **5**

Human Relations

EDUC&150	CHILD/FAMILY/COMMUNITY	3 cr.

Major Area Requirements

ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.
ECED&120	PRACTICUM-NURTURING REL	2 cr.
ECED&160	CURRICULUM DEVELOPMENT	5 cr.
ECED&170	ENVIRONMENTS-YOUNG CHILD	3 cr.
ECED&180	LANG/LITERACY DEVELOP	3 cr.
ECED&190	OBSERVATION/ASSESSMENT	3 cr.
EDUC&115	CHILD DEVELOPMENT	5 cr.
EDUC&130	GUIDING BEHAVIOR	3 cr.
or		
EDUC&136	SCHOOL AGE CARE	3 cr.
or		

ECED&132	INFANTS/TODDLERS CARE	3 cr.
or		
ECED&134	FAMILY CHILD CARE	3 cr.
or		
ECED&139	ADMIN EARLY LRNG PROG	3 cr.

Total Required Credits: 47

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/46EA/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- POWER, PRIVILEGE AND INEQUITY: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.
- TEACHING AND LEARNING: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.

Early Childhood Education (AAS)

General Education Requirements

Communication Skills (6 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

MATH 030	PRE-ALGEBRA (or COMPASS Placement in MATH 090)	5 cr.

Human Relations (3 credits required)

EDUC&150	CHILD/FAMILY/COMMUNITY	3 cr.

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

ENVS 109	INTEGRATED ENVIRONMENTAL SCIENCE	5 cr.

Major Area Requirements

ECE 102	SCIENCE AND MATHEMATICS FOR YOUNG CHILDREN	3 cr.
ECE 105	INDIVIDUALIZED INSTRUCTION I	2 cr.
ECE 106	INDIVIDUALIZED INSTRUCTION II	2 cr.
ECE 116	LITERATURE AND STORYTELLING FOR CHILDREN	2 cr.
ECE 133	REFLECTIVE PRACTICES IN EARLY LEARNING	3 cr.
ECE 135	PARTNERSHIPS WITH FAMILIES IN EARLY CARE & EDUC	3 cr.
ECE 199	COOPERATIVE WORK EXPERIENCE (5 credits required)	1-5 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.
ECED&105	INTRO EARLY CHILD ED	5 cr.
ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.
ECED&120	PRACTICUM-NURTURING REL	2 cr.
ECED&160	CURRICULUM DEVELOPMENT	5 cr.
ECED&170	ENVIRONMENTS-YOUNG CHILD	3 cr.
ECED&180	LANG/LITERACY DEVELOP	3 cr.
ECED&190	OBSERVATION/ASSESSMENT	3 cr.
EDUC&115	CHILD DEVELOPMENT	5 cr.
EDUC&130	GUIDING BEHAVIOR	3 cr.
EDUC&203	EXCEPTIONAL CHILD	3 cr.

Additional Major Area Requirements

ECED&132	INFANTS/TODDLERS CARE	3 cr.
or EDUC&136	SCHOOL AGE CARE	3 cr.

Total Required Credits: 102

Concurrent enrollment required for ECE 199/ECE 215.
Concurrent enrollment required for ECED& 105/ECED& 120.
Concurrent enrollment required for ECE 211/ECE 212 Lab.
Concurrent enrollment required for ECE 213/ECE 214 Lab.
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

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.
- BUILDING FAMILY AND COMMUNITY RELATIONSHIPS: Students will recognize, support and partner with families and communities in learning environments and with meaningful activities.
- OBSERVING, DOCUMENTING AND ASSESSING TO SUPPORT YOUNG CHILDREN AND FAMILIES: Students will apply the process of observation to diverse, and appropriate assessments of children.
- TEACHING AND LEARNING: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.
- BECOMING A PROFESSIONAL: Students will apply professional standards and frameworks in early learning classrooms.
- POWER, PRIVILEGE AND INEQUITY: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.

Early Childhood Education (AAS-T)

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.
CMST&210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.
CMST 216	INTERCULTURAL COMMUNICATION (recommended)	5 cr.
CMST&230	SMALL GROUP COMMUNICATION (recommended)	5 cr.
MUSC 106	MUSIC IN EARLY CHILDHOOD EDUCATION (recommended)	3 cr.
MUSC&104	MUSIC APPRECIATION (recommended)	3 cr.
SPAN&121	SPANISH I (recommended)	5 cr.
WS 101	INTRODUCTION TO WOMEN'S STUDIES (recommended)	5 cr.
Social Sciences (10 credits required) (must be taken from two departments)		
PSYC&200	LIFESPAN PSYCHOLOGY	5 cr.
SOC& 101	INTRO TO SOCIOLOGY (recommended)	5 cr.
SOC 121	MARRIAGE AND FAMILY EXPERIENCES IN THE U.S. (recommended)	3 cr.
SOC 131	RACE AND ETHNICITY IN THE U.S. (recommended)	3 cr.
Natural Sciences (10 credits required)		
(5 credits must be a lab science)		
BIOL 164	HUMAN BIOLOGY (recommended)	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB (recommended)	1 cr.
PHSC 101	GENERAL PHYSICAL SCIENCE (recommended)	5 cr.
PHSC 102	GENERAL PHYSICAL SCIENCE (recommended)	5 cr.

Major Area Requirements

The courses in the following areas are required:

Family and Community Relationships		
EDUC&150	CHILD/FAMILY/COMMUNITY	3 cr.

Health, Safety and Nutrition

ECED&107	HEALTH/NUTRITION/SAFETY	5 cr.

Professionalism

ECE 215	EARLY CHILDHOOD SEMINAR	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.
EDUC&203	EXCEPTIONAL CHILD	3 cr.

Curriculum Development and Implementation

ECE 211	LEARNING EXPERIENCES FOR YOUNG CHILDREN II	3 cr.
ECE 213	LEARNING EXPERIENCES FOR YOUNG CHILDREN III	3 cr.
ECED&160	CURRICULUM DEVELOPMENT	5 cr.
EDUC&136	SCHOOL AGE CARE	3 cr.

Child Guidance

EDUC&130	GUIDING BEHAVIOR	3 cr.

Diversity, Inclusion, Multicultural

ECE 105	INDIVIDUALIZED INSTRUCTION I	2 cr.
ECE 106	INDIVIDUALIZED INSTRUCTION II	2 cr.
ECED&105	INTRO EARLY CHILD ED	5 cr.
and ECED&120	PRACTICUM-NURTURING REL (Must take both)	2 cr.
ECED&180	LANG/LITERACY DEVELOP	3 cr.
EDUC&203	EXCEPTIONAL CHILD	3 cr.

Observation, Assessment and Evaluation

ECE 106	INDIVIDUALIZED INSTRUCTION II	2 cr.
ECED&105	INTRO EARLY CHILD ED	5 cr.
and ECED&120	PRACTICUM-NURTURING REL	2 cr.
EDUC&130	GUIDING BEHAVIOR	3 cr.

Practicum/Field Experience (suggested minimum 300 hours)

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

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- POWER, PRIVILEGE AND INEQUITY: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Communicate with various audiences using a variety of methods. (GE)

- PROMOTING CHILD DEVELOPMENT AND LEARNING: Students will apply developmental knowledge to create learning environments and meaningful activities.
- BUILDING FAMILY AND COMMUNITY RELATIONSHIPS: Students will recognize, support and partner with families and communities in learning environments and with meaningful activities.
- OBSERVING, DOCUMENTING AND ASSESSING TO SUPPORT YOUNG CHILDREN AND FAMILIES: Students will apply the process of observation to diverse, and appropriate assessments of children.
- TEACHING AND LEARNING: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.
- BECOMING A PROFESSIONAL: Students will apply professional standards and frameworks in early learning classrooms.

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 - 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.

Students taking this degree should note that a change in transfer institution might change requirements, and advisors at the transfer institution should be consulted. Students are encouraged to visit the WSUV Elementary Education program website for more comprehensive information related to the program admissions requirements, application deadlines and alternative coursework options.

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.

Health & Physical Education (3 credits required)

Humanities (15 credits required)

CMST&210	INTERPERSONAL COMMUNICATION (OC)	5 cr.
or		
CMST&220	PUBLIC SPEAKING (OC)	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION (OC)	5 cr.

Social Sciences (15 credits required)

GEOG&100	INTRODUCTION TO GEOGRAPHY	5 cr.
or		
GEOG&102	WORLD REGIONAL GEOGRAPHY	5 cr.
or		
GEOG&200	HUMAN GEOGRAPHY	5 cr.
or		
GEOG 205	PHYSICAL GEOGRAPHY	5 cr.
or		
GEOG&207	ECONOMIC GEOGRAPHY	5 cr.

Natural Sciences (18 credits required) 18

BIOL&100	SURVEY OF BIOLOGY	5 cr.
GEOL&101	INTRO PHYSICAL GEOLOGY	5 cr.
CHEM&110	CHEMICAL CONCEPTS W/LAB (recommended)	5 cr.
ASTR&101	INTRO TO ASTRONOMY (recommended)	5 cr.
PHYS&100	PHYSICS NON-SCI MAJORS (recommended)	4 cr.

Program Requirements

MATH 123	MATH FOR ELEMENTARY TEACHERS	5 cr.
MATH 124	MATH FOR ELEMENTARY TEACHERS	5 cr.
POLS 111	AMERICAN NATIONAL GOVERNMENT AND POLITICS	5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
or		
ECON&201	MICRO ECONOMICS	5 cr.
or		
ECON&202	MACRO ECONOMICS	5 cr.

Program Electives (if needed to reach 90 credits)

MATH 111	COLLEGE ALGEBRA	5 cr.
HIST&126	WORLD CIVILIZATIONS I	5 cr.
EDUC&201	INTRODUCTION TO EDUCATION (recommended)	3 cr.
EDUC 210	INTRODUCTORY FIELD EXPERIENCE (recommended)	3 cr.

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College.

After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

Emergency Medical Services

Clark College offers a Certificate of Completion in Emergency Medical Technician-Basic (EMT). A variety of community agencies such as transporting ambulance companies, police and fire departments, and large industries utilize employees with EMT training. This program includes lecture, laboratory, and field experience on an ambulance and fire rescue unit as available.

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 HLTH 124 Healthcare Provider CPR and First Aid (formerly FACPR 032) within first week of class).
- HEOC 120 Aids Education (or proof of minimum 7-hour AIDS Education Certificate).
- 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.

**Students are required to purchase the course textbook prior to the first class. The textbook can be purchased at the Clark College Bookstore*

***Students are strongly encouraged to attend the mandatory EMT course orientation held at NWRTC.*

Please call the NWRTC office at (360)397-2100 if you have any questions about the above requirements.

Emergency Medical Technician (Accelerated) (CC)

To earn the Certificate of Completion, students must complete the courses listed below with a grade point average (GPA) of 2.0 or above in each offering.

Program Requirements

EMT 103	EMERGENCY MEDICAL TECHNICIAN (ACCELERATED)	12 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	4 cr.
or BIOL 164	HUMAN BIOLOGY *	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB *	1 cr.

Recommended Courses

BMED 110	MEDICAL TERMINOLOGY I (strongly recommended)	3 cr.
and		
BMED 111	MEDICAL TERMINOLOGY II (strongly recommended)	3 cr.

Total Required Credits: 16-17

** HEOC 100 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

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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, non-verbal, 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.

Quantitative Skills (10 credits required)

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.

Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)(HA, HB, SS)

Pre-Major Program Requirements

CHEM&141	GENERAL CHEMISTRY I	4 cr.
CHEM&151	GENERAL CHEMISTRY LABORATORY I	1 cr.
MATH&153	CALCULUS III	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
MATH&254	CALCULUS IV	5 cr.
PHYS&241	ENGINEERING PHYSICS I	4 cr.
and PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
and PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.
and PHYS&233	ENGINEERING PHYSICS LAB III	1 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 AUTOCAD	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.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

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.

Quantitative Skills (10 credits required)

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.

Health & Physical Education (3 credits required)

Humanities & Social Sciences (15 credits required)

ENVS 231	ENVIRONMENTAL POLITICS	5 cr.
or POLS 231	ENVIRONMENTAL POLITICS	5 cr.
Humanities List A		5
Humanities or Social Sciences		5

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 203	DESCRIPTIVE STATISTICS	3 cr.
MATH 204	INFERENTIAL STATISTICS	3 cr.

Program Requirements

ENGL&102	ENGLISH COMPOSITION II	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
ENVS 211	INTRO TO ENVIRONMENTAL SYSTEMS	5 cr.
ENVS 221	ENVIRONMENTAL SCIENCE: PROBLEM SOLVING	5 cr.
GEOL 102	INTRO TO GEOL II: EARTH'S SURFACE PROCESSES	5 cr.
or PHYS&241	ENGINEERING PHYSICS I	4 cr.
and PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.

Suggested Electives

GEOL&101	INTRO PHYSICAL GEOLOGY	5 cr.
or PHYS&242	ENGINEERING PHYSICS II	4 cr.
and PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
or PHYS&243	ENGINEERING PHYSICS III	4 cr.
and PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
SURV 125	INTRODUCTION TO GIS	3 cr.

Total Required Credits: 90 minimum

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.

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&241	ENGINEERING PHYSICS I	4 cr.
and PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
and PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.
and PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.

Quantitative Skills (10 credits required)

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.

Health & Physical Education (3 credits required)

HPE 258	FITNESS-WELLNESS	3 cr.
or HLTH Health course		2
and PE Activity Course		1

Humanities & Social Sciences (15 credits required)

CMST&220	PUBLIC SPEAKING	5 cr.

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.

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

Health Information, Informatics Management, Medical Billing

The Business Technology Medical Information programs (BMED Department) at Clark College teach the business, computer and medical skills needed to succeed in high-demand and high-paying professions including Medical Billing and Coding, Medical Records, Registered Health Information Technician (RHIT) and many more.

With the planned implementation of the ICD-10 medical coding system October 1, 2015, the expected need for Coders and RHITs will be the highest in recent history. Many hospitals will need two coders for every one they currently employ. Graduates of these certificates and/or degrees become eligible to obtain certification and apply for employment in these rewarding fields. The BMED programs teach both ICD-9 & ICD-10 and offer classes that utilize real-world applications such as electronic charting, Encoder, PCS, and AHIMA Virtual Labs.

BMED courses are not limited entry and students may begin the coursework any term.

Health Information Assistant (CP)

The Health Information Assistant program trains individuals to work in a medical record department in a variety of healthcare settings. Individuals may also work as a health unit coordinator (unit secretary) in a hospital or work in RHIT related jobs. 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.
or		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

BMED 103	MATH FOR HEALTH CARE PROFESSIONALS	3 cr.

Human Relations (3 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&220	PUBLIC SPEAKING	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BIOL 164	HUMAN BIOLOGY	4 cr.
and		
BIOL 165	HUMAN BIOLOGY LAB	1 cr.
or		
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY	4 cr.
BMED 105	STATISTICS FOR HEALTH CARE PROFESSIONALS	2 cr.
BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO PATHOPHYSIOLOGY	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.
BMED 226	MEDICAL OFFICE PRACTICUM	3 cr.
or BMED 250	MEDICAL OFFICE CAPSTONE PRACTICUM	3 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

Total Required Credits: 71-72

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/529C/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are

measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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. (affective)
- Communicate with various audiences using a variety of methods. (GE)

Health Information and Informatics Management (AAT)

The Health Information and Informatics Management (HIIM) Program at Clark College provides training in business applications coupled with medical information that allow graduates to work in numerous healthcare careers. Completion of the HIIM degree will allow graduates to sit for the RHIT exam. A Registered Health Information Technician (RHIT) is a professional certification administered by the American Health Information Management Association (AHIMA) in the United States. Passing the exam results in licensure as a health information technician.

A registered health information technician (RHIT) spends the majority of his or her day at a desk working on a computer. The RHIT frequently uses computer programs to track information about patients such as the cost of treatment and the length of a hospital stay. This information is used by the hospital's management when reviewing the budget for a department or determining whether additional staff members are needed. The job often becomes repetitive as the RHIT uses many of the same codes frequently throughout the day. However, RHITs may make themselves more valuable by specializing in certain areas of medicine. For example, some RHITs become cancer registrars or optometry coding specialists. The entry-level RHIT jobs are $11.56-20.45 and hour (median). After a few years of experience many RHIT's move into the Health Information Management Directors field. These jobs range from $39k-109k/year. Job satisfaction is high and work is enjoyable for most Registered Health Information Technicians. In addition many licensed RHIT's work in related careers including medical billing and coding, management, IT project manager, health records tech, ROI officer, and health educators. (payscale.com)

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
or		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

BMED 103	MATH FOR HEALTH CARE PROFESSIONALS	3 cr.
and		
BMED 105	STATISTICS FOR HEALTH CARE PROFESSIONALS	2 cr.

Human Relations (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&220	PUBLIC SPEAKING	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BIOL 164	HUMAN BIOLOGY	4 cr.
and		
BIOL 165	HUMAN BIOLOGY LAB	1 cr.
or		
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY	4 cr.
BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO PATHOPHYSIOLOGY	5 cr.
BMED 116	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I	3 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.
BMED 226	MEDICAL OFFICE PRACTICUM	3 cr.
or		
BMED 250	MEDICAL OFFICE CAPSTONE PRACTICUM	3 cr.
BMED 227	HEALTH DATA CONTENT AND STRUCTURE	3 cr.
BMED 228	MEDICAL DOCUMENT MANAGEMENT AND TECHNOLOGY	3 cr.
BMED 233	INTRODUCTION TO PATIENT NAVIGATION & ADVOCACY	5 cr.
BMED 242	INTERMEDIATE ANATOMY AND PHYSIOLOGY	3 cr.
BTEC 100	KEYBOARDING	1-3 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.
HI 202	INTRODUCTION TO HEALTH CARE QUALITY	3 cr.
HI 210	INTRODUCTION TO HEALTH SERVICES MANAGEMENT	3 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

Total Required Credits: 100-101

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Manage processes for compliance and reporting to assure the accuracy and integrity of health data.
- Assure that documentation in the health record supports the diagnosis and reflects the progress, clinical findings and discharge status.
- Respond to the information needs of internal and external customers throughout the continuum of healthcare services.
- Support the implementation of legal and regulatory requirements related to the health information infrastructure regarding healthcare privacy and confidentiality issues, so as to help manage access, disclosure, and use of personal health information.

- Ensure compliance with organization-wide health record documentation guidelines.
- Monitor, verify, and interpret clinical vocabularies and terminologies used in the organization's health information systems, including abbreviation usage diagnosis and procedure codes.
- Apply current laws, accreditation, licensure and certification standards related to health information initiatives at the national, state, local and facility levels to ensure organizational compliance.
- Enhance health data collection, storage, analysis and reporting of information including end-user hardware and software applications.
- Help to recognize HIT best practices and enact strategic and operational plans for utilization of these practices

Medical Billing/Coding Specialist (CP)

The Medical Billing/Coding Specialist program prepares individuals for employment in the areas of medical insurance, physician's office coding, inpatient hospital coding, healthcare claims processing, and home-remote coding. This program also serves the needs of healthcare personnel interested in upgrading their professional skills.

Training in medical billing includes CMS-1500 and UB04 claim forms as well as the processing of insurance claims and basic health information procedures. Coding training includes CPT-4, ICD-9 & ICD-10-CM, PCS, and MSDRGs as well as the legislative changes, such as the Affordable Care Act (ACA) to the billing and coding environment.

Graduates have highly marketable skills that will continue to be in high demand. With the implementation of ICD-10 this October the need for trained individuals to fill these jobs have never been greater.

This program is open-entry and you may begin taking classes in this rewarding and lucrative field any quarter.

General Education Requirements

Communication Skills (3 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
or		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

BMED 103	MATH FOR HEALTH CARE PROFESSIONALS	3 cr.

Human Relations (3 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&220	PUBLIC SPEAKING	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BMED 105	STATISTICS FOR HEALTH CARE PROFESSIONALS	2 cr.
BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO PATHOPHYSIOLOGY	5 cr.
BMED 116	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I	3 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 226	MEDICAL OFFICE PRACTICUM	3 cr.
or BMED 250	MEDICAL OFFICE CAPSTONE PRACTICUM	3 cr.
BMED 233	INTRODUCTION TO PATIENT NAVIGATION & ADVOCACY	5 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	4 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

Recommended Elective (Not Required)

BMED 140	LEGAL ASPECTS OF HEALTH INFORMATION	2 cr.
BTEC 169	INTRODUCTION TO EXCEL	3 cr.

Total Required Credits: 67-68

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 http://www.clark.edu/academics/catalog/gainful-employmentGainful Employment Program Information page.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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 an effective strategy to solve a quantitative problem. (GE)
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Accurately process medical billing claims
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)

Medical Billing/Coding Professional (AAT)

The Medical Billing/Coding AAT trains students in both inpatient and outpatient coding and billing. The graduate of this program is highly trained in billing, coding and health information with many successfully passing CPC, or CCS certifications and obtaining high-paying and rewarding positions. In addition the student will earn their Associate of Applied Technology degree.

With the planned implementation of the ICD-10 medical coding system October 1, 2015, the expected need for Coders and RHITs will be the highest in recent history. Many hospitals will need two coders for every one they currently employ. The BMED programs teach both ICD-9 & ICD-10 and offer classes that utilize real-world applications such as electronic charting, Encoder, PCS, and AHIMA Virtual Labs.

BMED courses are not limited entry and students may begin the coursework any term.

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
or		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

BMED 103	MATH FOR HEALTH CARE PROFESSIONALS	3 cr.
and		
BMED 105	STATISTICS FOR HEALTH CARE PROFESSIONALS	2 cr.

Human Relations (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&220	PUBLIC SPEAKING	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO PATHOPHYSIOLOGY	5 cr.
BMED 116	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I	3 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.
BMED 226	MEDICAL OFFICE PRACTICUM	3 cr.
or		
BMED 250	MEDICAL OFFICE CAPSTONE PRACTICUM	3 cr.
BMED 227	HEALTH DATA CONTENT AND STRUCTURE	3 cr.
BMED 233	INTRODUCTION TO PATIENT NAVIGATION & ADVOCACY	5 cr.
BMED 242	INTERMEDIATE ANATOMY AND PHYSIOLOGY	3 cr.
BTEC 100	KEYBOARDING	1-3 cr.
BTEC 135	10-KEY CALCULATOR	1 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
BTEC 169	INTRODUCTION TO EXCEL	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	4 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HI 202	INTRODUCTION TO HEALTH CARE QUALITY	3 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

Total Required Credits: 91-92

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, AST, or AFA degree requirements

Honors Certificate (AC)

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 Honors-designated courses.		**20**
HONS 290	SPECIAL PROJECTS: HONORS *	1-6 cr.

*Students must complete at least 3-credits

Total Required Credits: 23

Industrial Maintenance Technology

The Industrial Maintenance Technology program is designed to provide the knowledge, skills and abilities to successfully respond to a broad range of work requirements and duties within industrial, manufacturing and processing environments. Students will learn industrial safety, blue print reading, and have the options to learn multiple weld processes, basic machining, electrical fundamentals, basic hydraulics and pneumatics. Students who

choose to complete the AAT degree option will have the opportunity to customize their program to a specific area of focus in Machining, Mechatronics or Welding.

Labor statistic show that the industries demand for skilled Industrial Maintenance Technicians over the next decade is expected to grow. Both the certificate and degree programs in Industrial Maintenance Technology were developed as a response to local industry demand and with the input of local employers.

Industrial Maintenance Technician (CA)

The certificate program is designed to provide students with marketable entry level skills in machining, mechatronics and welding which can lead to employment as an installation, maintenance and repair worker helper or production worker within the manufacturing industry.

Major Area Requirements

BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
HLTH 120	ADULT CPR AND FIRST AID	1 cr.
MACH 111	BASIC GENERAL MACHINING PROCESSES	5 cr.
MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 105	BASIC HYDRAULICS	3 cr.
MTX 107	BASIC PNEUMATICS	2 cr.
MTX 123	PICK AND PLACE ROBOT	3 cr.
or MTX 125	SERVO ROBOT	3 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 140	GAS METAL ARC WELDING	6 cr.
or WELD 144	SHIELDED METAL ARC WELDING	6 cr.
MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 41

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/768E/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate compliance of all shop safety regulations.
- Interpret blueprints associated with project or machinery.
- Perform entry-level skills for setup and operation of manual machines.
- Operate, measure, and modify software-driven industrial control systems.
- Operate manual, semi-automatic, and automatic welding equipment to fuse metal joints.

Industrial Maintenance Technologies (AAT)

The degree program will build on the knowledge, skills and abilities developed in the certificate program and will provide student with higher level skills in Machining, Mechatronics and Welding. Students completing this program will be prepared for employment as a maintenance technician within industrial, manufacturing and processing environments.

General Education Requirements

Communication Skills

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.

Human Relations (5 credits required)

CMST&230	SMALL GROUP COMMUNICATION (recommended)	5 cr.

Major Area Requirements

BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
HLTH 120	ADULT CPR AND FIRST AID	1 cr.
MACH 111	BASIC GENERAL MACHINING PROCESSES	5 cr.
MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 105	BASIC HYDRAULICS	3 cr.
MTX 107	BASIC PNEUMATICS	2 cr.
MTX 123	PICK AND PLACE ROBOT	3 cr.
or MTX 125	SERVO ROBOT	3 cr.
MTX 285	PROJECT MANAGEMENT AND LEAN MANUFACTURING	2 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 140	GAS METAL ARC WELDING	6 cr.
and		
WELD 141	GAS METAL ARC FABRICATION	6 cr.
or WELD 144	SHIELDED METAL ARC WELDING	6 cr.
and		
WELD 145	SHIELDED METAL ARC FABRICATION	6 cr.
MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.

Program Specialty Area Requirements

Students must complete a minimum of 26 credits in specialty areas. Choose from the following list:

MACH 112	BASIC ENGINE LATHE PROCESSES I	5 cr.
MACH 113	BASIC VERTICAL MILLING PROCESSES I	5 cr.
MTX 110	ELECTRIC MOTOR CONTROL 1	4 cr.
MTX 130	PROGRAMMABLE LOGIC CONTROLLERS 1	4 cr.
MTX 165	ELECTRIC MOTOR CONTROL 2	4 cr.
MTX 207	THERMAL PROCESS CONTROL	5 cr.
MTX 225	SPEED CONTROL SYSTEMS	2 cr.
MTX 230	LASER ALIGNMENT	2 cr.

MTX 250	ADVANCED PROGRAMMABLE LOGIC CONTROLLERS	4 cr.
WELD 110	WELDING BLUEPRINT READING	5 cr.

Total Required Credits: 91

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate compliance of all shop safety regulations.
- Interpret blueprints associated with project or machinery.
- Perform inspection of machined parts, welds and/or equipment.
- Perform entry-level skills for setup and operation of manual machines.
- 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.
- Perform manual and semi-automatic oxyfuel cutting and plasma cutting operations required by skilled welders.
- Operate manual, semi-automatic, and automatic welding equipment to fuse metal joints.

International Studies

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 5 credits of a 200 level World Language Course and 20 credits of approved international courses. Students must complete the 200 level language class with a grade of C or above.

International Studies (AC)

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.

Required Core Courses (5 credits required)

World Language (5 credits required)

5 credits of &200-level courses in one language (Japanese or Spanish)

Approved International Electives (20 credits required)

The International Studies Certificate Program has identified certain courses in the Clark College catalog as having a strong international component. Students must complete 20 credits from the list below. The selected courses count toward the International Studies Certificate while at the same time meeting distribution requirements for the Associate of Arts degree. Students must complete each international elective class with a grade of C or above. See list of Approved International Courses below:

ANTH&206	INTRODUCTION TO CULTURAL ANTHROPOLOGY	5 cr.

ART 220	ART HISTORY: ANCIENT TO LATE ANTIQUE	5 cr.
or		
ART 221	ART HISTORY: MEDIEVAL-RENAISSANCE	5 cr.
or		
ART 222	ART HISTORY: BAROQUE-MODERN	5 cr.
BIOL 101	ENVIRONMENTAL BIOLOGY	5 cr.
CMST 216	INTERCULTURAL COMMUNICATION	5 cr.
ECON 110	INTRODUCTION TO THE GLOBAL ECONOMY	5 cr.
ECON 120	INTERNATIONAL ECONOMICS	3 cr.
ENGL 261	WORLD LITERATURE	3 cr.
or		
ENGL 262	WORLD LITERATURE	3 cr.
ENGL 264	BRITISH LITERATURE	3 cr.
or		
ENGL 265	BRITISH LITERATURE	3 cr.
or		
ENGL 266	BRITISH LITERATURE	3 cr.
ENGL 150	INTRODUCTION TO MYTHOLOGY	3 cr.
GEOG&102	WORLD REGIONAL GEOGRAPHY	5 cr.
GEOG&207	ECONOMIC GEOGRAPHY	5 cr.
HIST 231	HISTORY OF GENOCIDE	3 cr.
HIST 260	AFRICAN HISTORY	5 cr.
HIST 285	HISTORY OF LATIN AMERICA	5 cr.
HIST&126	WORLD CIVILIZATIONS I	5 cr.
or		
HIST&127	WORLD CIVILIZATIONS II	5 cr.
or		
HIST&128	WORLD CIVILIZATIONS III	5 cr.
HIST 251	WOMEN IN WORLD HISTORY I	5 cr.
or		
HIST 252	WOMEN IN WORLD HISTORY II	5 cr.
JAPN 171	JAPANESE SOCIETY	3 cr.
MUSC 116	MUSIC HISTORY: MIDDLE AGES TO BAROQUE	5 cr.
or		
MUSC 117	MUSIC HISTORY: CLASSICAL/ROMANTIC	5 cr.
or		
MUSC 118	MUSIC HISTORY: TWENTIETH CENTURY	5 cr.
PHIL&101	INTRODUCTION TO PHILOSOPHY	5 cr.
POLS&203	INTERNATIONAL RELATIONS	5 cr.
POLS 220	THE GEOPOLITICS OF THE MIDDLE EAST	5 cr.
WS 201	WOMEN AROUND THE WORLD	3 cr.

Total Required Credits: 25

Journalism

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.

News Media Studies (AC)

For students who want expertise in journalism and news media, this certificate may be earned along with a regular AA degree, and will be awarded upon graduation.

Core Courses

JOUR 101	INTRODUCTION TO JOURNALISM	5 cr.
JOUR 111	DIGITAL NEWS	5 cr.
JOUR 110	COLLEGE NEWS PRODUCTION (3 credits required between JOUR 110-130)	1-3 cr.
or		
JOUR 120	COLLEGE NEWS PRODUCTION (3 credits required between JOUR 110-130)	1-3 cr.
or		
JOUR 130	COLLEGE NEWS PRODUCTION (3 credits required between JOUR 110-130)	1-3 cr.
ENGL 160	WRITING FOR THE WEB	3 cr.
CMST&102	INTRO TO MASS MEDIA	5 cr.

Additional Coursework

Choose one course from the following list:

CGT 103	INDESIGN PAGE LAYOUT	4 cr.
CGT 201	WEB VIDEO PRODUCTION	4 cr.
CGT 106	SOCIAL MEDIA EXPLORATION	3 cr.
ART 131	PHOTOGRAPHIC STORYTELLING	3 cr.

Total Required Credits: 24-25

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.

Manual Machining (CP)

General Education Requirements

Communication Skills (3 credits required)

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills (3 credits required)

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended)	5 cr.

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.

Total Required Credits: 54-58

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/808B/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College.

After successful completion of this program, students will be able to:

- 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.
- Communicate and interact in a team/group environment to perform multiple tasks in a professional and ethical manner.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

Machining Technician (CP)

General Education Requirements

Communication Skills (3 credits required)

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills (3 credits required)

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended)	5 cr.

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 241	ADVANCED PRECISION MEASUREMENT	5 cr.
MACH 242	INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING	5 cr.
MACH 243	INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING	5 cr.
MACH 251	TOOLING CONCEPTS	5 cr.
MACH 252	CNC LATHE SETUP AND OPERATION	5 cr.
MACH 253	CNC MILLING SETUP AND OPERATION	5 cr.
MACH 261	ADVANCED EDM PROCESSES	5 cr.
MACH 262	ADVANCED CNC LATHE PROGRAMMING	5 cr.
MACH 263	ADVANCED MILLING 3D PROGRAMMING AND MACHINING	5 cr.

Related Required Classes

MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 103-107

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/808A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Perform entry level skills for set-up 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate compliance of all machine shop safety regulations.
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Interpret blueprints and perform inspection of machined parts.

Machining Technologies (AAS)

General Education Requirements

Communication Skills (6 credits required)

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Health & Physical Education (3 credits required)

Computational Skills (3 credits required)

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended)	5 cr.

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 241	ADVANCED PRECISION MEASUREMENT	5 cr.
MACH 242	INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING	5 cr.
MACH 243	INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING	5 cr.
MACH 251	TOOLING CONCEPTS	5 cr.
MACH 252	CNC LATHE SETUP AND OPERATION	5 cr.
MACH 253	CNC MILLING SETUP AND OPERATION	5 cr.

MACH 261	ADVANCED EDM PROCESSES	5 cr.
MACH 262	ADVANCED CNC LATHE PROGRAMMING	5 cr.
MACH 263	ADVANCED MILLING 3D PROGRAMMING AND MACHINING	5 cr.

Related Required Classes

MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 118-122

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Demonstrate compliance of all machine shop safety regulations.
- Interpret blueprints and perform inspection of machined parts.
- Perform entry level skills for set-up 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.

Machining Technologies (AAT)

General Education Requirements

Communication Skills (5 credits required)

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills (5 credits required)

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended)	5 cr.

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 241	ADVANCED PRECISION MEASUREMENT	5 cr.
MACH 242	INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING	5 cr.
MACH 243	INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING	5 cr.
MACH 251	TOOLING CONCEPTS	5 cr.
MACH 252	CNC LATHE SETUP AND OPERATION	5 cr.
MACH 253	CNC MILLING SETUP AND OPERATION	5 cr.
MACH 261	ADVANCED EDM PROCESSES	5 cr.
MACH 262	ADVANCED CNC LATHE PROGRAMMING	5 cr.
MACH 263	ADVANCED MILLING 3D PROGRAMMING AND MACHINING	5 cr.

Related Required Classes

MACH 235	ELEMENTARY METALLURGY	2 cr.
MACH 236	ELEMENTARY METALLURGY LAB	2 cr.

Total Required Credits: 109

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate compliance of all machine shop safety regulations.
- Interpret blueprints and perform inspection of machined parts.
- Perform entry level skills for set-up 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.
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

Marketing

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.

Marketing (CP)

The Marketing certificate provides students with a clear and well-rounded picture of how basic business functions impact marketing in the United States, as well as global, economic systems. Students learn about the conceptual and applied use of marketing, which includes marketing research tactics, the marketing mix concept, customer behavior, and the external environments considered in marketing decisions. Technology, ethics and social responsibility, competition, economics, and government and legal considerations complete the key components of this certificate.

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.

General Education Requirements

Communication Skills (3 credits required)

BTEC 106	APPLIED OFFICE ENGLISH	3 cr.
or		
ENGL&101	ENGLISH COMPOSITION I	5 cr.

Computational Skills (3 credits required)

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations (3 credits required)

BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.

Business Core Courses

BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
BTEC 100	KEYBOARDING	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.

Major Area Requirements

BUS 117	ADVERTISING	3 cr.
BUS 199	COOPERATIVE WORK EXPERIENCE **	1-5 cr.
BUS 251	PROFESSIONAL SELLING	3 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Total Required Credits: 54-56

***Minimum of 5 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 http://www.clark.edu/academics/catalog/gainful-employment/252B/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.

Marketing (AAS)

The Marketing Associate of Applied Science degree provides a pervasive and critical link between the producers of products and the consumers of those products. Marketing professionals research, design, price, promote, and place

goods and services that meet the needs of target customer groups. With the foundation in basic business skills that this program provides, the student is prepared for an entry-level career in varied and interesting manufacturing, distribution, advertising, public relations, selling, and retail fields.

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.

Certificate of Proficiency Completed accounts for 56-60 of necessary credits.

General Education Requirements

Communication Skills (3 credits required)

CMST&220	PUBLIC SPEAKING	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Health and Physical Education **3**

Humanities **3**

Natural Sciences **3**

Computational Skills- *satisfied in the CPs.*

Human Relations - *satisfied in the CPs.*

Social Sciences - *satisfied in the CPs.*

Major Area Requirements

BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 105	INTRODUCTION TO INTERNATIONAL BUSINESS	3 cr.
BUS 117	ADVERTISING	3 cr.
BUS& 201	BUSINESS LAW	5 cr.
BUS 251	PROFESSIONAL SELLING	3 cr.
BUS 260	PRINCIPLES OF MARKETING	5 cr.

Complete a minimum of 3 to 14 additional credits from the following areas:

- Accounting (ACCT)
- Business Administration (BUS)
- Economics (ECON)
- Supervisory Management (MGMT)
- Computer Applications (BTEC - 6 credit maximum)

and

Complete as many General Elective (GE) courses as needed to reach the total of 90 credits required by the degree.

Total Required Credits: 90-93

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Create an effective business ad to meet the needs of specific target market(s).
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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.

- 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 required under federal and state laws.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)

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 for more specific information.

Generic DTA Requirements

A. Basic Requirements

1. Communication Skills	10
2. Quantitative/Symbolic Reasoning Requirements	5
Intermediate algebra proficiency is required.	

B. Distribution Requirements

1. Humanities	15
2. Social Sciences	15
3. Natural Sciences	3

C. Major Requirements

1. Math courses	
2. Education courses	
3. Elective Courses	

MRP Requirements

A. Basic Requirements

1. English Composition	10
2. First-quarter Calculus	5
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
Intro to Psychology (5 cr.)	
Other social sciences (10 cr.)	
3. Natural Sciences	15
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	

3. 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 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 Requirements

Intermediate algebra proficiency is required.

MATH&151	CALCULUS I	5 cr.

B. Distribution Requirements

1. Humanities

CMST&220	PUBLIC SPEAKING Fulfills oral communication requirement	5 cr.

2. Social Sciences

PSYC&100	GENERAL PSYCHOLOGY	5 cr.

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

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)

- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

Mathematics

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.

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.

Social Sciences (15 credits required)

ECON&201	MICRO ECONOMICS	5 cr.

or ECON&202	MACRO ECONOMICS	5 cr.

Additional Requirements

COLL 101	COLLEGE ESSENTIALS: INTRODUCTION TO CLARK	2 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.

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

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

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.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

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.

General Requirements

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.

A. Basic Requirements

1. Communication Skills		
Clark Equivalents:		
ENGL&101	ENGLISH COMPOSITION I	5 cr.
2. Mathematics		10

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.

Clark Equivalents:		
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.

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		
Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.		
Clark Equivalents:		
PHYS&241	ENGINEERING PHYSICS I (concurrent enrollment in PHYS094 required)	4 cr.
and PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II (concurrent enrollment in PHYS095 required)	4 cr.
and PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&243	ENGINEERING PHYSICS III (concurrent enrollment in PHYS096 required)	4 cr.
and PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.
4. Chemistry with Laboratory		
Clark Equivalents:		
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&120 is strongly recommended as the Humanities course.

C. Electives

1. Elective Courses

The remaining term 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.

Required at Clark:		
MATH&254	CALCULUS IV	5 cr.

Other electives as advised dependent on transfer institution.

Requirements

5. Required Major Courses

B. Distribution Requirements

1. Humanities/Fine Arts/English & Social Sciences 15

C. Electives

1. Elective Courses

The remaining term 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
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
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
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	

Total Required Credits: 102-110

Mechatronics

Mechatronics Technology is a growing career field that deals with the integration of mechanical and electronic components managed by control systems. Mechatronics technicians troubleshoot, maintain and repair mechanical equipment controlled by electrical, electronic and computer systems. These types of systems are increasingly used in

a wide variety of manufacturing and industrial settings. Clark College's Mechatronics Technology (MTX) classes emphasize current concepts and technology by providing practical, hands-on experiences with the latest, industry standard equipment. In addition to the technical know-how needed to maintain and repair equipment, the certificate and degree programs will help prepare students to think critically, function as a successful team member and communicate clearly too internal and external customers.

The multiple certificate and degree options available within this program allow students the option to stop-out and enter the workforce, and re-enter the program as needed, or complete their program of study without stopping.

Instrumentation/Control Automation (CA)

Major Area Requirements

MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	3 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 121	SEMICONDUCTORS I	3 cr.
MTX 123	PICK AND PLACE 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.

Total Required Credits: 40

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/633F/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Troubleshoot problems in automated 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.

Mechanical Automation (CA)

Major Area Requirements

MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	3 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 121	SEMICONDUCTORS I	3 cr.
MTX 123	PICK AND PLACE ROBOT	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.

Total Required Credits: 44

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/633E/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Troubleshoot problems in electrical, mechanical, hydraulic and pneumatic equipment.
- 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.

Instrumentation/Control Automation (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	3 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 121	SEMICONDUCTORS I	3 cr.
MTX 123	PICK AND PLACE ROBOT	3 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 216	MECHATRONICS 2	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: 90

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/633B/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Assimilate and interpret technical and nontechnical descriptions to form a solution.
- Design, operate, and troubleshoot automation processes and systems.

Mechanical Automation (CP)

General Education Requirements

Communication Skills (3 credits required)

Computational Skills (3 credits required)

Human Relations (3 credits required)

Major Area Requirements

MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	3 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 121	SEMICONDUCTORS I	3 cr.
MTX 123	PICK AND PLACE ROBOT	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 216	MECHATRONICS 2	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 260	ADVANCED PNEUMATICS AND VACUUM	3 cr.
MTX 270	CAPSTONE	3 cr.
MTX 285	PROJECT MANAGEMENT AND LEAN MANUFACTURING	2 cr.
MTX 295	ORGANIZATIONAL ENTREPRENEURSHIP	3 cr.

Total Required Credits: 84

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/633A/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Assimilate and interpret technical and nontechnical descriptions to form a solution.
- Design, operate, and troubleshoot automation processes and 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

Instrumentation/Control Automation (AAT)

General Education Requirements

Communication Skills

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.

Human Relations

CMST&230 SMALL GROUP COMMUNICATION (recommended) 5 cr.

Major Area Requirements

MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	3 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 121	SEMICONDUCTORS I	3 cr.
MTX 123	PICK AND PLACE ROBOT	3 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 216	MECHATRONICS 2	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: 96

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- 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.

Mechanical Automation (AAT)

General Education Requirements

Communication Skills (5 credits required)

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills (5 credits required)

PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.

Human Relations (5 credits required)

CMST&230	SMALL GROUP COMMUNICATION (recommended)	5 cr.

Major Area Requirements

MTX 100	INDUSTRIAL SAFETY	1 cr.
MTX 101	DC FUNDAMENTALS	3 cr.
MTX 102	AC FUNDAMENTALS	4 cr.
MTX 103	BASIC MEASUREMENT TOOLS	2 cr.
MTX 105	BASIC HYDRAULICS	3 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 121	SEMICONDUCTORS I	3 cr.
MTX 123	PICK AND PLACE ROBOT	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 210	ELECTRO-FLUID POWER	4 cr.
MTX 216	MECHATRONICS 2	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 227	MECHANICAL DRIVES 3	4 cr.
MTX 230	LASER ALIGNMENT	2 cr.
MTX 250	ADVANCED PROGRAMMABLE LOGIC CONTROLLERS	4 cr.
MTX 260	ADVANCED PNEUMATICS AND VACUUM	3 cr.
MTX 270	CAPSTONE	3 cr.
MTX 285	PROJECT MANAGEMENT AND LEAN MANUFACTURING	2 cr.
MTX 295	ORGANIZATIONAL ENTREPRENEURSHIP	3 cr.

Total Required Credits: 96

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are

measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Design, operate, and troubleshoot automation processes and 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.
- Communicate with various audiences using a variety of methods. (GE)
- Assimilate/interpret technical and nontechnical descriptions to form a solution.

Medical Assistant

The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assistant responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) . 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). Graduates of Clark College's Medical Assisting program are eligible to sit for the American Association of Medical Assistants (AAMA) Certified Medical Assistant Examination, as well as, the national certification for Medical Assistants. To gain employment in as Certified Medical Assistant students must graduate from the program and pass both certifications.

Commission on Accreditation of Allied Health Education Programs
www.caahep.org
1361 Park Street
Clearwater, FL 33756
727-210-2350

Medical Assistant Education Review Board
http://www.maerb.org/
20 N. Wacker Drive, Suite 1575
Chicago, IL 60606
1-800-228-2262

Washington State Department of Health
www.doh.wa.gov
Town Center 2
111 Israel Rd SE
Tumwater, WA 98501
360-236-4700
Fax number: 360-236-4818
Email Address: hsqa.csc@doh.wa.gov

National Center for Competency Testing
NCCT 7007 College Blvd Suite 385 Overland Park KS 66211
Phone: 800.875.4404 Fax: 913.498.1243
www.ncctinc.com/

American Association of Medical Assistants
www.aama-ntl.org

Applications are accepted at any time however this is a limited entry program. Candidates who meet the preliminary requirements will be considered for winter quarter entry.

Minimum Requirements:

Complete the Clark College Application for Admission and the Medical Assistant Application. Return both 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 Assistant website. Date of Medical Assistant Application (fee paid date) will be considered in selecting students for entry into the program.

Complete with a 2.0 or above all Preliminary Required Courses: BMED 103, BMED 110, BMED 111, BMED 116, BTEC 107 or PTWR 135 or ENGL&101, BTEC 149, HEOC 100 or BIOL 164/165, HEOC 104 and HEOC 130.

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 Medical Assisting Program. Students who do not plan to apply transfer credits towards the program are not required to submit official transcripts.

Take the Clark College COMPASS Test. Call (360) 992-2648 for Assessment Center hours. The following scores or equivalent classes are required prior to program entry:

Reading: COMPASS score of 74 or higher or completion of READ 087 or equivalent with 2.0 or above.

Obtain a minimum Clark College cumulative GPA of 2.0 or above

Program Progression:

Obtain a complete physical to verify proof of fitness to perform Medical Assistant requirements.

Contact the Health Services Center at Clark College or a personal physician for the physical. Submit physical results to the Director of the Medical Assistant program.

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 immunizations before registering for Medical Office Clinical Procedures I (BMED 163) https://www.certifiedbackground.com/ (register as a student and pay the fee required as a BMED student under the Medical Assistant Program, complete the background check on this site as well).

Complete or take concurrently all Medical Assistant Program courses before registering for Medical Assistant Practicum (BMED 166).

Medical Assistant (CP)

General Education Requirements

Communication Skills (3 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.
or PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (3 credits required)

BMED 103	MATH FOR HEALTH CARE PROFESSIONALS	3 cr.

Human Relations (3 credits required)

BMED 166	MEDICAL ASSISTANT PRACTICUM **	6 cr.

Major Area Requirements

BMED 105	STATISTICS FOR HEALTH CARE PROFESSIONALS	2 cr.

BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO PATHOPHYSIOLOGY	5 cr.
BMED 116	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I	3 cr.
BMED 117	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II	3 cr.
BMED 130	MEDICAL CODING - CPT/HCPCS	4 cr.
BMED 132	MEDICAL CODING ICD-9-CM/ICD-10	5 cr.
BMED 137	THERAPEUTIC COMM SKILLS FOR HEALTH PROF	3 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
BMED 139	MA ASSISTANT EXAMINATION REVIEW	2 cr.
BMED 163	MEDICAL OFFICE CLINICAL PROCEDURES I (with lab)	6 cr.
BMED 164	MEDICAL OFFICE CLINICAL PROCEDURES II (with lab)	6 cr.
BMED 165	MEDICAL OFFICE LABORATORY PROCEDURES	4 cr.
BTEC 101	BEGINNING KEYBOARDING (3 credits required) ***	1-3 cr.
or BTEC 103	REFRESHER KEYBOARDING (3 credits required) ***	1-3 cr.
BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	4 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HEOC 120	AIDS EDUCATION	1 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

Recommended Electives

BMED 129	MEDICAL REIMBURSEMENT	5 cr.

Total Required Credits: 85

** 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.*

*** Practicum is a non-paid, supervised work experience.*

****Register for BTEC 100*

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employmentGainful Employment Program Information page.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Accurately and effectively demonstrate clinical skills required of the medical assistant. (affective, cognitive and psychomotor)
- Successfully complete all criteria necessary for taking the CMA Exam. (cognitive and psychomotor)
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances). (affective, cognitive and psychomotor)

- Apply policies and principles of office management (patient reception, scheduling, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and procedures for office management. (cognitive)

Medical Assisting (AAT)

General Education Requirements

Communication Skills (5 credits required)

BTEC 107	BUSINESS ENGLISH	5 cr.
or PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

BMED 103	MATH FOR HEALTH CARE PROFESSIONALS	3 cr.
BMED 105	STATISTICS FOR HEALTH CARE PROFESSIONALS	2 cr.

Human Relations (5 credits required)

CMST&230	SMALL GROUP COMMUNICATION	5 cr.

Major Area Requirements

BMED 110	MEDICAL TERMINOLOGY I	3 cr.
BMED 111	MEDICAL TERMINOLOGY II	3 cr.
BMED 112	INTRODUCTION TO PATHOPHYSIOLOGY	5 cr.
BMED 116	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I	3 cr.
BMED 117	MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II	3 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 137	THERAPEUTIC COMM SKILLS FOR HEALTH PROF	3 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
BMED 139	MA ASSISTANT EXAMINATION REVIEW	2 cr.
BMED 163	MEDICAL OFFICE CLINICAL PROCEDURES I (with lab)	6 cr.
BMED 164	MEDICAL OFFICE CLINICAL PROCEDURES II (with lab)	6 cr.
BMED 165	MEDICAL OFFICE LABORATORY PROCEDURES	4 cr.
BMED 166	MEDICAL ASSISTANT PRACTICUM	6 cr.
BTEC 101	BEGINNING KEYBOARDING * (3 credits required)	1-3 cr.
or BTEC 103	REFRESHER KEYBOARDING * (3 credits required)	1-3 cr.
BTEC 147	PROFESSIONAL SELF-DEVELOPMENT	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY	4 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HEOC 120	AIDS EDUCATION	1 cr.
HEOC 130	PHARMACOLOGY FOR HEALTH ASSISTANTS	3 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

Total Required Credits: 92

** Students should register for BTEC 100.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and procedures for office management. (cognitive)
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor).
- Accurately and effectively demonstrate clinical skills required of the medical assistant. (affective, cognitive and psychomotor)
- Successfully complete all criteria necessary for taking the CMA Exam. (cognitive and psychomotor)

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 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

NTEC 103	IP SUBNETTING	2 cr.
NTEC 220	INTRODUCTION TO LINUX SERVERS	6 cr.
NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
NTEC 222	CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS	6 cr.
NTEC 223	CISCO CCNA 3: SCALING NETWORKS	6 cr.
NTEC 224	CISCO CCNA 4: CONNECTING NETWORKS	6 cr.
NTEC 225	CISCO CCNA SECURITY	6 cr.
NTEC 226	CISCO CCNA VOICE	6 cr.

Total Required Credits: 43

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 http://www.clark.edu/academics/catalog/gainful-employmentGainful Employment Program Information page.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.
- Maintain converged networks to meet specific business needs.
- Resolve common issues with converged networks.

Microsoft 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

CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.
NTEC 103	IP SUBNETTING	2 cr.
NTEC 132	WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS	3 cr.
NTEC 220	INTRODUCTION TO LINUX SERVERS	6 cr.
NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
NTEC 234	MICROSOFT SERVER ADMINISTRATOR 1	6 cr.

NTEC 235	MICROSOFT SERVER ADMINISTRATOR 2	6 cr.
NTEC 236	MICROSOFT SERVER ADMINISTRATOR 3	6 cr.

Total Required Credits: 37

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/527E/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Design Microsoft networks and domain structures to meet specific business needs.
- Implement Microsoft networks and domain structures to meet specific business needs.
- Maintain Microsoft networks and domain structures to meet specific business needs.
- Resolve common issues with Microsoft networks and domain structures.

Cisco Technologies (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
or PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

MATH&107	MATH IN SOCIETY	5 cr.
or MATH 111	COLLEGE ALGEBRA	5 cr.
or		
PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.
or		
PHIL&120	SYMBOLIC LOGIC	5 cr.

Human Relations (5 credits required)

Major Area Requirements

NTEC 103	IP SUBNETTING	2 cr.
NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
NTEC 222	CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS	6 cr.
NTEC 223	CISCO CCNA 3: SCALING NETWORKS	6 cr.
NTEC 224	CISCO CCNA 4: CONNECTING NETWORKS	6 cr.
NTEC 225	CISCO CCNA SECURITY	6 cr.
NTEC 226	CISCO CCNA VOICE	6 cr.
NTEC 299	CAPSTONE EXPERIENCE: CISCO TECHNOLOGIES	3 cr.

Program Specialty Area Requirements

Students must complete a minimum of 34 credits in specialty areas. Choose from the following list:

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
CTEC 104	PC SUPPORT CUSTOMER SERVICE SKILLS	3 cr.

CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 122	HTML FUNDAMENTALS	4 cr.
CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.
CTEC 131	MICROSOFT MTA NETWORKING FUNDAMENTALS	3 cr.
CTEC 133	MICROSOFT MTA SECURITY FUNDAMENTALS	5 cr.
CTEC 134	MICROSOFT MTA DATABASE ADMIN	5 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 141	UNIX SYSTEM ADMINISTRATION	5 cr.
CTEC 145	WEB SERVER TECHNOLOGY	5 cr.
NTEC 125	INFORMATION SECURITY FUNDAMENTALS	3 cr.
NTEC 132	WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS	3 cr.
NTEC 142	CLOUD COMPUTING FUNDAMENTALS	3 cr.
NTEC 199	COOPERATIVE WORK EXPERIENCE	1-6 cr.
NTEC 220	INTRODUCTION TO LINUX SERVERS	6 cr.
NTEC 234	MICROSOFT SERVER ADMINISTRATOR 1	6 cr.
NTEC 235	MICROSOFT SERVER ADMINISTRATOR 2	6 cr.
NTEC 236	MICROSOFT SERVER ADMINISTRATOR 3	6 cr.
NTEC 242	DATACENTER VIRTUALIZATION TECHNOLOGY	6 cr.

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.
- Maintain converged networks to meet specific business needs.
- Resolve common issues with converged networks.

Microsoft Technologies (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
or PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

MATH&107	MATH IN SOCIETY	5 cr.
or MATH 111	COLLEGE ALGEBRA	5 cr.
or		
PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.
or		
PHIL&120	SYMBOLIC LOGIC	5 cr.

Human Relations (5 credits required)

Major Area Requirements

CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.
NTEC 103	IP SUBNETTING	2 cr.
NTEC 132	WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS	3 cr.
NTEC 220	INTRODUCTION TO LINUX SERVERS	6 cr.
NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
NTEC 234	MICROSOFT SERVER ADMINISTRATOR 1	6 cr.
NTEC 235	MICROSOFT SERVER ADMINISTRATOR 2	6 cr.
NTEC 236	MICROSOFT SERVER ADMINISTRATOR 3	6 cr.
NTEC 298	CAPSTONE EXPERIENCE: MICROSOFT TECHNOLOGIES	3 cr.

Program Specialty Area Requirements

Students must complete a minimum of 34 credits in specialty areas. Choose from the following list:

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
CTEC 104	PC SUPPORT CUSTOMER SERVICE SKILLS	3 cr.
CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 122	HTML FUNDAMENTALS	4 cr.
CTEC 131	MICROSOFT MTA NETWORKING FUNDAMENTALS	3 cr.
CTEC 133	MICROSOFT MTA SECURITY FUNDAMENTALS	5 cr.
CTEC 134	MICROSOFT MTA DATABASE ADMIN	5 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 141	UNIX SYSTEM ADMINISTRATION	5 cr.
NTEC 125	INFORMATION SECURITY FUNDAMENTALS	3 cr.
NTEC 142	CLOUD COMPUTING FUNDAMENTALS	3 cr.
NTEC 199	COOPERATIVE WORK EXPERIENCE	1-6 cr.
NTEC 222	CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS	6 cr.
NTEC 223	CISCO CCNA 3: SCALING NETWORKS	6 cr.
NTEC 224	CISCO CCNA 4: CONNECTING NETWORKS	6 cr.
NTEC 225	CISCO CCNA SECURITY	6 cr.
NTEC 226	CISCO CCNA VOICE	6 cr.
NTEC 242	DATACENTER VIRTUALIZATION TECHNOLOGY	6 cr.

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Design Microsoft networks and domain structures to meet specific business needs.
- Implement Microsoft networks and domain structures to meet specific business needs.
- Maintain Microsoft networks and domain structures to meet specific business needs.
- Resolve common issues with Microsoft networks and domain structures.

Network Technologies (AAT)

General Education Requirements

Communication Skills (5 credits required)

ENGL&101	ENGLISH COMPOSITION I	5 cr.
or		
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING	5 cr.

Computational Skills (5 credits required)

MATH&107	MATH IN SOCIETY	5 cr.
or		
MATH 111	COLLEGE ALGEBRA	5 cr.
or		
PTCS 110	PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS	5 cr.
or		
PHIL&120	SYMBOLIC LOGIC	5 cr.

Human Relations (5 credits required)

Major Area Requirements

NTEC 103	IP SUBNETTING	2 cr.
NTEC 132	WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS	3 cr.
NTEC 220	INTRODUCTION TO LINUX SERVERS	6 cr.
NTEC 221	CISCO CCNA 1:INTRODUCTION TO NETWORKS	6 cr.
NTEC 222	CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS	6 cr.
NTEC 234	MICROSOFT SERVER ADMINISTRATOR 1	6 cr.
NTEC 235	MICROSOFT SERVER ADMINISTRATOR 2	6 cr.
NTEC 297	CAPSTONE EXPERIENCE: NETWORK TECHNOLOGIES	3 cr.

Program Area Requirements

Students must complete a minimum of 37 credits in specialty areas. Choose from the following list:

BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
CTEC 104	PC SUPPORT CUSTOMER SERVICE SKILLS	3 cr.
CTEC 121	INTRO TO PROGRAMMING & PROBLEM SOLVING	5 cr.
CTEC 122	HTML FUNDAMENTALS	4 cr.
CTEC 130	MICROSOFT MTA WINDOWS OS FUNDAMENTALS	3 cr.
CTEC 131	MICROSOFT MTA NETWORKING FUNDAMENTALS	3 cr.
CTEC 133	MICROSOFT MTA SECURITY FUNDAMENTALS	5 cr.
CTEC 134	MICROSOFT MTA DATABASE ADMIN	5 cr.
CTEC 140	INTRODUCTION TO UNIX	5 cr.
CTEC 141	UNIX SYSTEM ADMINISTRATION	5 cr.
CTEC 145	WEB SERVER TECHNOLOGY	5 cr.
CTEC 213	COMPTIA A+ FUNDAMENTALS	4 cr.
CTEC 214	COMPTIA A+ OPERATING SYSTEMS & NETWORKING	4 cr.

NTEC 125	INFORMATION SECURITY FUNDAMENTALS	3 cr.
NTEC 142	CLOUD COMPUTING FUNDAMENTALS	3 cr.
NTEC 199	COOPERATIVE WORK EXPERIENCE	1-6 cr.
NTEC 223	CISCO CCNA 3: SCALING NETWORKS	6 cr.
NTEC 224	CISCO CCNA 4: CONNECTING NETWORKS	6 cr.
NTEC 225	CISCO CCNA SECURITY	6 cr.
NTEC 226	CISCO CCNA VOICE	6 cr.
NTEC 236	MICROSOFT SERVER ADMINISTRATOR 3	6 cr.
NTEC 242	DATACENTER VIRTUALIZATION TECHNOLOGY	6 cr.

Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Design Windows and Linux networks to meet specific business needs.
- Implement Windows and Linux networks to meet specific business needs.
- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.

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 Accreditation Commission for Education in Nursing (ACEN).

ACEN
Accreditation Commission for Education In Nursing
3343 Peachtree Road NE, Suite 850
Atlanta, Georgia 30326
www.acenursing.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 Enrollment Services 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
- BIOL& 251L Human Anatomy & Physiology I
- BIOL& 252L Human Anatomy & Physiology II
- BIOL& 253L Human Anatomy & Physiology III
- BIOL& 260 Microbiology
- NUTR 103 Nutrition
- PSYC& 200 Lifespan Psychology
- ENGL& 101 Composition 1
- ENGL& 102 Composition 2 or ENGL 109 Writing about the Sciences

There is a seven-year (7) limit on all science and social science courses listed 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 Clark College Nursing program is limited and competitive. Selection is based on a point system that includes science GPA, applicable GPA, Washington state residency, and other factors. For more information on the criteria and calculating your points, please refer to "Selection" on the Nursing program website at www.clark.edu/clarknursing.

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.

NAC

Students must have active NAC prior to enrolling in the Nursing Program.

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)

(Placement of MATH 090 or higher will satisfy this requirement)

Human Relations (3 credits required)

Humanities (3 credits required)

Social Sciences (3 credits required)

PSYC&200	LIFESPAN PSYCHOLOGY	5 cr.

(Lifespan Psychology also fulfills the Human Relations Requirement)

Natural Sciences (3 credits required)

CHEM&121	INTRO TO CHEMISTRY: PRE-HEALTH	5 cr.

Additional Program Prerequisites

BIOL&251	HUMAN A & P I	5 cr.
BIOL&252	HUMAN A & P II	5 cr.
BIOL&253	HUMAN A & P III	5 cr.
BIOL&260	MICROBIOLOGY	5 cr.
NUTR 103	GENERAL NUTRITION	3 cr.

Major Area Requirements

NURS 110	FOUNDATIONS OF NURSING CONCEPTS	3 cr.
NURS 111	FOUNDATIONS OF CLINICAL NURSING	4 cr.
NURS 113	LIFESPAN ASSESSMENT CONCEPTS	2 cr.
NURS 114	NURSING SKILLS APPLICATION I	1 cr.
NURS 115	NURSING SKILLS LAB I	2 cr.
NURS 122	FAMILY-CENTERED NURSING	2 cr.

NURS 123	FAMILY-CENTERED CLINICAL NURSING	5 cr.
NURS 124	INTRODUCTION TO MENTAL HEALTH NURSING	1 cr.
NURS 127	NURSING SKILLS APPLICATION II	1 cr.
NURS 128	NURSING SKILLS LAB II	2 cr.
NURS 135	MEDICAL SURGICAL NURSING CONCEPTS 1	3 cr.
NURS 136	MEDICAL-SURGICAL CLINICAL NURSING I	6 cr.
NURS 137	NURSING SKILLS APPLICATION III	1 cr.
NURS 138	NURSING SKILLS LAB III	2 cr.
NURS 241	MEDICAL-SURGICAL NURSING CONCEPTS II	3 cr.
NURS 242	MEDICAL/SURGICAL CLINICAL NURSING II	8 cr.
NURS 251	MEDICAL-SURGICAL NURSING CONCEPTS III	2 cr.
NURS 252	ADVANCED HOLISTIC CLINICAL NURSING	8 cr.
NURS 253	MENTAL HEALTH NURSING CONCEPTS ADVANCED	2 cr.
NURS 261	PROFESSIONAL LEADERSHIP TRANSITION TO PRACTICE	2 cr.
NURS 262	PROFESSIONAL LEADERSHIP SENIOR PRACTICUM	8 cr.
NURS 263	PROFESSIONAL ROLE IN COMMUNITY SERVICE	1 cr.
NURS 264	CAPSTONE NCLEX PREPARATION	1 cr.

Total Required Credits: 117

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

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Teamwork and Interprofessional Collaboration: Model open communication, mutual respect and shared decision making.
- 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.
- 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.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Demonstrate interpersonal/human relations skills. (GE)

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.

Generic DTA Requirements

A. Basic Requirements

1. Communication Skills	10
2. Quantitative/Symbolic Reasoning Requirements	5
Intermediate algebra proficiency is required.	

B. Distribution Requirements

1. Humanities	15
2. Social Sciences	15
3. Natural Sciences	15

C. Electives 27

Elective Courses

MRP Requirements

A. Basic Requirements

1. English Composition	10
2. Quantitative/Symbolic Reasoning Requirement	5
5 quarter credits Statistics (a course that includes descriptive and inferential statistics)	
Intermediate algebra proficiency is required.	

B. Distribution Requirements

1. Humanities	15
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
• 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
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 **10**

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	INFERENTIAL STATISTICS	3 cr.

B. Distribution Requirements

1. Humanities

CMST&220	PUBLIC SPEAKING Fulfills oral communication requirement	5 cr.
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 164 & BIOL 165 preferred)

BIOL&251	HUMAN A & P I	5 cr.
BIOL&252	HUMAN A & P II	5 cr.
BIOL&253	HUMAN A & P III	5 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

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

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.
and MATH 204	INFERENTIAL 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	5 cr.
BIOL&252	HUMAN A & P II	5 cr.
BIOL&253	HUMAN A & P III	5 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 NURSING CONCEPTS	3 cr.
NURS 111	FOUNDATIONS OF CLINICAL NURSING	4 cr.
NURS 113	LIFESPAN ASSESSMENT CONCEPTS	2 cr.
NURS 114	NURSING SKILLS APPLICATION I	1 cr.
NURS 115	NURSING SKILLS LAB I	2 cr.
NURS 122	FAMILY-CENTERED NURSING	2 cr.
NURS 123	FAMILY-CENTERED CLINICAL NURSING	5 cr.
NURS 124	INTRODUCTION TO MENTAL HEALTH NURSING	1 cr.
NURS 127	NURSING SKILLS APPLICATION II	1 cr.
NURS 128	NURSING SKILLS LAB II	2 cr.
NURS 135	MEDICAL SURGICAL NURSING CONCEPTS 1	3 cr.
NURS 136	MEDICAL-SURGICAL CLINICAL NURSING I	6 cr.
NURS 137	NURSING SKILLS APPLICATION III	1 cr.
NURS 138	NURSING SKILLS LAB III	2 cr.
NURS 241	MEDICAL-SURGICAL NURSING CONCEPTS II	3 cr.
NURS 242	MEDICAL/SURGICAL CLINICAL NURSING II	8 cr.
NURS 251	MEDICAL-SURGICAL NURSING CONCEPTS III	2 cr.
NURS 252	ADVANCED HOLISTIC CLINICAL NURSING	8 cr.
NURS 253	MENTAL HEALTH NURSING CONCEPTS ADVANCED	2 cr.
NURS 261	PROFESSIONAL LEADERSHIP TRANSITION TO PRACTICE	2 cr.
NURS 262	PROFESSIONAL LEADERSHIP SENIOR PRACTICUM	8 cr.
NURS 263	PROFESSIONAL ROLE IN COMMUNITY SERVICE	1 cr.
NURS 264	CAPSTONE NCLEX PREPARATION	1 cr.

**Can apply to Humanities*

Total Required Credits: 142

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)

- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- 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
- Knowledge: Integrate relevant theoretical and practical knowledge.
- Clinical Judgment: Demonstrate effective problem solving and decision making.

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 certificate program requires 62-68 credits, and includes preliminary requirements in addition to a three-quarter sequence of program classes. 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 Enrollment Services 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. Eligible students may be included in the selection process a maximum of two times before they must reapply.

• Washington State Law [WAC 246-901-030(2)], requires that students have completed one of the following to be eligible for selection into the program: high school graduation, GED completion, or higher U.S. degree conferment. Students must attest that they have completed this requirement and explain how and when it was satisfied (see Pharmacy Tech application, page 2).

The following courses or placement levels are required prior to program entry:

- MATH: Completion of MATH 030 or equivalent with a grade of "C"or better (2.0) or placement into MATH 089/090 (Must be 7 years current upon program entry).
- WRITING: Completion of ENGL 098 or equivalent with a grade of "C"or better (2.0) or placement into ENGL& 101.
- Obtain a minimum Clark College cumulative GPA of 2.5 or higher
- 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 104 - Health Care Delivery & Career Exploration (formerly HEOC 102)
    - HEOC 120 - AIDS Education
- Obtain a minimum Clark College cumulative GPA of 2.5 or above.
- Accepted students must complete a 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- Basic Concepts of Anatomy and Physiology (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).
- HLTH 124 Healthcare Provider CPR and First Aid (formerly FACPR 032)*
- BMED 138- Legal Aspects of the Medical Office

* Contact Credentials regarding Credit for Prior Learning if you have current certifications at (360) 992-2805.

Completion of CMST&210 or CMST&230 and BMED 111 prior to entering the program is strongly encouraged, and is required no later than the first quarter of the Pharmacy Technician program (once accepted).

Final Program Admission

Upon completion of preliminary requirements and application to the program, 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

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

Completion of ENGL 098 or equivalent with a grade of "C"or better (2.0) or placement into ENGL& 101

Completion of MATH 030 or equivalent with a grade of "C"or better (2.0) or placement into MATH 089/090 (Must be 7 years current upon program entry).

BMED 110	MEDICAL TERMINOLOGY I *	3 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HEOC 120	AIDS EDUCATION	1 cr.

Additional Requirements

BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	4 cr.
or BIOL 164	HUMAN BIOLOGY *	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB *	1 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

General Education Requirements

Communication Skills (3 credits required) 3

Computational Skills (3 credits required)

PHAR 110	PHARMACY CALCULATIONS	3 cr.

Human Relations (3 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&230	SMALL GROUP 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: 67-68

** Must be seven years current upon program entry and must be completed by the end of the first quarter 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

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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 work place while complying with laws, regulations, and ethical standards of practice.
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.

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

Completion of ENGL 098 or equivalent with a grade of "C"or better (2.0) or placement into ENGL& 101

Completion of MATH 030 or equivalent with a grade of "C"or better (2.0) or placement into MATH 089/090 (Must be 7 years current upon program entry).

BMED 110	MEDICAL TERMINOLOGY I *	3 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
BTEC 149	COMPUTER APPLICATIONS ESSENTIALS	3 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	4 cr.
or BIOL 164	HUMAN BIOLOGY *	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB *	1 cr.
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HEOC 120	AIDS EDUCATION	1 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.

General Education Requirements

Communications (5 credits required) **5**

Computational Skills (5 credits required) **5**

Human Relations (5 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&230	SMALL GROUP COMMUNICATION	5 cr.

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.
MGMT 106	MOTIVATION AND PERFORMANCE	3 cr.
BIOL 180	BIOETHICS	3 cr.

Total Required Credits: 91-94

** Must be seven years current upon program entry.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

- 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 work place 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.
- Communicate with various audiences using a variety of methods. (GE)

Phlebotomy

The Phlebotomy curriculum prepares students to perform skin and venipunctures, to obtain, transport and process laboratory specimens, and to function as a member of a medical laboratory team.

The program curriculum includes a one-quarter lab practicum (PHLE 197) that gives students actual practice working in a health care facility. For additional program information, please refer to the Phlebotomy program web site, available online at: www.clark.edu/phlebotomy.

A Certificate of Achievement is awarded to those who successfully complete the program requirements. Graduates are also eligible to apply for a Washington State Phlebotomy license and are prepared to take a National Phlebotomy Certification examination.

The Phlebotomy Program is a two-quarter clinical program with preliminary requirements that must be completed before program entry. Admission to the program is outlined in two stages: preliminary requirements and final program admission.

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.

Phlebotomy (CA)

Candidates must:

• Complete the Clark College Application for Admission and the Phlebotomy Application. Return to the Clark College Enrollment Services with the non-refundable program application fees (subject to change). For current fee amounts, please visit the Phlebotomy website at www.clark.edu/phlebotomy. Date of Phlebotomy Application (fee paid date) will be considered in selecting students for entry into the program.

• Washington State Law [WAC 246-901-030(2)], requires that students have completed one of the following to be eligible for selection into the Phlebotomy program: high school graduation, GED completion, or higher U.S. degree conferment. Students must attest that they have completed this requirement and explain how and when it was satisfied (on page 2 of the Phlebotomy application).

• Submit official college transcripts if you have transfer credits you wish to apply to the program. Students who do not plan to apply transfer credits toward the program are not required to submit official transcripts.

• The following course or placement level is required prior to program entry: WRITING: Completion of ENGL

098 or equivalent with a grade of "C"or better (2.0) or placement into ENGL& 101.

- Obtain a minimum Clark College cumulative GPA of 2.5 or above.
- Complete Preliminary Requirements with a 2.0 or higher

The most recent educational experience will be used to meet these criteria. Applicants are responsible for requesting that college transcripts be sent to Clark College.

Final Program Admission

Upon completion of preliminary requirements, an evaluation will be completed, and the applicant will be notified by the Health Occupation Evaluations Office of additional procedures necessary for program consideration. Application (fee paid) date is used in ranking students for selection, so it is beneficial to apply early.

Program Progression

- To successfully complete the Phlebotomy program, keep in mind the following:
- Students may be included in selection 2 times, after which their file becomes inactive.
- All students must successfully complete PHLE 115 and PHLE 116 with a grade "C" or better as well as the required venipunctures and lab hours to progress into the clinical portion of the program.
- If a student is unable to continue with the clinical portion immediately following PHLE 115 and 116, they must return the Petition for Readmission Form to begin again with the next available cohort. Students who wish to be considered for their second opportunity must notify the Allied Health Office and follow the Readmission procedure. Students will be accepted on a space-available basis.
- PHLE 115 and PHLE 116 may be repeated one time only.

General Information

Selection criteria are subject to change. For complete updated information, please refer to the application materials, available online at www.clark.edu/phlebotomy.

Phlebotomy (CA)

Preliminary Requirements

BMED 110	MEDICAL TERMINOLOGY I *	3 cr.
ENGL 098	WRITING FUNDAMENTALS	5 cr.
or equivalent with a grade of "C"or better (2.0) or placement into ENGL& 101		
HEOC 104	HEALTH CARE DELIVERY & CAREER EXPLORATION	3 cr.
HLTH 124	HEALTHCARE PROVIDER CPR AND FIRST AID	1 cr.
HEOC 120	AIDS EDUCATION	1 cr.
HEOC 100	BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY *	4 cr.
or BIOL 164	HUMAN BIOLOGY *	4 cr.
and BIOL 165	HUMAN BIOLOGY LAB	1 cr.

Program Requirements

BMED 111	MEDICAL TERMINOLOGY II *	3 cr.
BMED 138	LEGAL ASPECTS OF THE MEDICAL OFFICE	2 cr.
CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or		
CMST&230	SMALL GROUP COMMUNICATION	5 cr.

PHLE 115	PHLEBOTOMY EDUCATION W/LAB	3 cr.
PHLE 116	BASIC LABORATORY FOR THE PHLEBOTOMIST	3 cr.
PHLE 197	PHLEBOTOMY CLINICAL EXPERIENCE	5 cr.
PHLE 198	PHLEBOTOMY CLINICAL SEMINAR	1 cr.

Total Required Credits: 34-44

** Course must be seven years current upon program entry.*

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Accurately perform phlebotomy procedures in variable clinical environments.
- Identify the varying clinical conditions that require a different methodology of sample collection.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of patients and other healthcare providers.
- Conduct self in an ethical and professional manner to provide quality patient care.
- Apply safety and infection control standards in the health care environment.

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.

Quantitative Skills (10 credits required)

MATH&151	CALCULUS I	5 cr.
MATH&152	CALCULUS II	5 cr.

Health & Physical Education (3 credits required)

Health Requirement	2
Physical Education Activity	1

Humanities & Social Sciences (15 credits required)

CMST&210	INTERPERSONAL COMMUNICATION	5 cr.
or CMST&220	PUBLIC SPEAKING	5 cr.

or CMST&230	SMALL GROUP COMMUNICATION	5 cr.
Humanities and Social Sciences Requirements		10

Pre-Major Program Requirements

ENGL&102	ENGLISH COMPOSITION II	5 cr.
or ENGL 109	WRITING ABOUT THE SCIENCES	5 cr.
MATH 111	COLLEGE ALGEBRA	5 cr.
MATH&153	CALCULUS III	5 cr.
MATH 221	DIFFERENTIAL EQUATIONS	5 cr.
MATH&254	CALCULUS IV	5 cr.
Electives		1-5

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&241	ENGINEERING PHYSICS I	4 cr.
and PHYS&231	ENGINEERING PHYSICS LAB I	1 cr.
PHYS&242	ENGINEERING PHYSICS II	4 cr.
and PHYS&232	ENGINEERING PHYSICS LAB II	1 cr.
PHYS&243	ENGINEERING PHYSICS III	4 cr.
and PHYS&233	ENGINEERING PHYSICS LAB III	1 cr.

Total Required Credits: 90 minimum

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply scientific methodologies to develop and answer questions about the natural world.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

Power, Privilege, and Inequity Certificate

In the contemporary United States, we are increasingly called upon to simultaneously engage with multiple ideas and diverse peoples while addressing complex problems related to power, privilege, and inequity. When unprepared to address these issues, we often, unknowingly, perpetuate these problems.

This Certificate prepares students to identify power, privilege, and inequity as central organizing principles of human experience within the United States. Students who complete this certificate will be able to do the following.

- Identify and deconstruct the individual, institutional, and ideological systems of power, privilege and inequity.
- Critically analyze one' s own multiple identities within the context of power, privilege and inequity.
- Critically examine and describe the social, political and historical construction of identity and difference with regard to sex, gender, race, class, sexuality, age, and ability.
- This certificate would be earned along with any two-year degree, and would be awarded upon graduation.

Power, Privilege, and Inequity (AC)

Core Courses

Each core course below is required. Students must earn a minimum grade of "C"

ECE 133	REFLECTIVE PRACTICES IN EARLY LEARNING	3 cr.
ENGL 175	INTRODUCTION TO LGBTQ STUDIES	5 cr.
SOC 131	RACE AND ETHNICITY IN THE U.S.	3 cr.
WS 101	INTRODUCTION TO WOMEN'S STUDIES	5 cr.
WS 220	RACE, CLASS, GENDER AND SEXUALITY	5 cr.
WS 225	RACISM & WHITE PRIVILEGE IN THE U.S.	3 cr.

Elective Courses

Choose one of the following:

ASL 125	AMERICAN DEAF CULTURE	5 cr.
ENGL 140	WOMEN IN LITERATURE	3 cr.
ENGL 176	NATURE AND THE HUMANITIES	4 cr.
ENGL 254	INTRODUCTION TO QUEER LITERATURE	3 cr.
ENGL 267	AMERICAN MULTIETHNIC LIT	3 cr.
HIST&215	WOMEN IN U.S. HISTORY	5 cr.
HIST&219	NATIVE AMERICAN HISTORY	5 cr.
HIST 275	AFRICAN-AMERICAN HISTORY	5 cr.

Total Required Credits: 27-29

Small Business Management

Small businesses play significant roles in today's economy, both domestic and global. No matter the type of industry, management training is essential to the probability of long-term success. This Small Business Management certificate includes the basic courses that provide the necessary skills needed for small business owners to sustain and expand their operations.

Small Business Management (CP)

This program focuses on the theories used to manage and lead a small business. Whether an entrepreneur, small business owner, or franchiser/franchisee, the odds of being a success greatly improve through real-world practices that are taught in this program. The foundation of knowledge gleaned from the study of small business management emphasizes the many stakeholders that are necessary for success. The impact that small business has on one's life and the lives of others is revealed, along with the contributions from small business to the economy and society. Many of today's career opportunities have been in the small business sector, and forecasts suggest that this trend will continue. The Small Business Management certificate provides a solid foundation to operate and maintain a successful small business.

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.

General Education Requirements

Communication Skills (3 credits required)

BTEC 106	APPLIED OFFICE ENGLISH	3 cr.
or		
ENGL&101	ENGLISH COMPOSITION I	5 cr.

Computational Skills (3 credits required)

BUS 102	BUSINESS MATH APPLICATIONS	5 cr.

Human Relations (3 credits required)

BTEC 148	BUSINESS PROFESSIONAL SELF DEVELOPMENT	3 cr.

Business Core Course

BUS 028	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS& 101	INTRODUCTION TO BUSINESS	5 cr.
BTEC 100	KEYBOARDING	1-3 cr.
BTEC 150	COMPUTER BUSINESS APPLICATIONS	5 cr.
ECON 101	INTRODUCTION TO ECONOMICS	3 cr.
MGMT 101	PRINCIPLES OF MANAGEMENT	3 cr.

Major Area Requirements

BUS 029	BASIC ACCOUNTING PROCEDURES	3 cr.
BUS 036	ACCOUNTING APPLICATIONS	3 cr.
BUS 115	SMALL BUSINESS MANAGEMENT	3 cr.
BUS 135	BUSINESS PLAN	3 cr.
BUS& 201	BUSINESS LAW	5 cr.
BUS 251	PROFESSIONAL SELLING	3 cr.
BUS 199	COOPERATIVE WORK EXPERIENCE **	1-5 cr.

**Minimum of 5 credits must be earned in Cooperative Work Experience

Total Required Credits: 58-60

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate with various audiences using a variety of methods. (GE)
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Accurately maintain payroll register 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.
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)

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.

Survey & Geomatics Technician - GIS (CP)

General Education Requirements

Communication Skills **3 cr.**

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations **3 cr.**

CMST&210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.

Major Area Requirements

CADD 140	BASIC AUTOCAD	4 cr.
or		
ENGR 140	BASIC AUTOCAD	4 cr.
SURV 104	COMPUTATION AND PLATTING	5 cr.
SURV 121	FIELD SURVEY I	5 cr.
or		
ENGR 121	FIELD SURVEY I	5 cr.
SURV 122	FIELD SURVEY II	5 cr.
SURV 123	PROFESSIONAL ETHICS	1 cr.
SURV 125	INTRODUCTION TO GIS	3 cr.
SURV 163	ROUTE SURVEYING	5 cr.
SURV 250	ARC GIS I	3 cr.
SURV 252	MAP PROJECTIONS	2 cr.
SURV 253	INTRODUCTION TO GPS	2 cr.

Total Required Credits: 50

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Communicate in written form, verbally, and graphically with surveyors and engineers.
- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Practice a code of ethics prescribed by the professional organizations and state codes.

Survey & Geomatics Technician - Boundary (CP)

General Education Requirements

Communication Skills **3 cr.**

PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Computational Skills

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations **3**

CMST&210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.

Major Area Requirements

CADD 140	BASIC AUTOCAD	4 cr.
or		
ENGR 140	BASIC AUTOCAD	4 cr.
SURV 104	COMPUTATION AND PLATTING	5 cr.
SURV 121	FIELD SURVEY I	5 cr.
or		
ENGR 121	FIELD SURVEY I	5 cr.
SURV 122	FIELD SURVEY II	5 cr.
SURV 123	PROFESSIONAL ETHICS	1 cr.
SURV 163	ROUTE SURVEYING	5 cr.
SURV 202	BOUNDARY SURVEYS	4 cr.
SURV 203	LEGAL DESCRIPTIONS	3 cr.
SURV 223	BOUNDARY LAW I	3 cr.
SURV 264	SURVEY SOFTWARE APPLICATIONS	4 cr.

Total Required Credits: 54

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.
- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Practice a code of ethics prescribed by the professional organizations and state codes.

Surveying/Geomatics (AAS)

General Education Requirements

Communication Skills (6 credits required)

CMST&210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.
PTWR 135	INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended)	5 cr.

Health & Physical Education (3 credits required)

HPE 220	INDUSTRIAL HEALTH AND FITNESS (recommended)	3 cr.

Computational Skills (3 credits required)

MATH 103	COLLEGE TRIGONOMETRY	5 cr.

Human Relations (3 credits required)

CMST&210	INTERPERSONAL COMMUNICATION (recommended)	5 cr.

Humanities (3 credits required)

Social Sciences (3 credits required)

Natural Sciences (3 credits required)

PHSC 101	GENERAL PHYSICAL SCIENCE (recommended)	5 cr.

Major Area Requirements

BTEC 169	INTRODUCTION TO EXCEL	3 cr.
CADD 140	BASIC AUTOCAD	4 cr.
or ENGR 140	BASIC AUTOCAD	4 cr.
ENGR 113	ENGINEERING SKETCHING AND VISUALIZATION	2 cr.
MATH 111	COLLEGE ALGEBRA (or higher)	5 cr.
MATH&151	CALCULUS I (or higher)	5 cr.
SURV 102	FUNDAMENTALS OF SURVEY (recommended)	2 cr.
SURV 104	COMPUTATION AND PLATTING	5 cr.
SURV 121	FIELD SURVEY I	5 cr.
or ENGR 121	FIELD SURVEY I	5 cr.
SURV 122	FIELD SURVEY II	5 cr.
SURV 123	PROFESSIONAL ETHICS	1 cr.
SURV 125	INTRODUCTION TO GIS	3 cr.
SURV 163	ROUTE SURVEYING	5 cr.
SURV 202	BOUNDARY SURVEYS	4 cr.
SURV 203	LEGAL DESCRIPTIONS	3 cr.
SURV 223	BOUNDARY LAW I	3 cr.
SURV 225	SUBDIVISION PLANNING A & PLATTING	3 cr.
SURV 250	ARC GIS I	3 cr.
SURV 253	INTRODUCTION TO GPS	2 cr.
SURV 252	MAP PROJECTIONS	2 cr.
SURV 264	SURVEY SOFTWARE APPLICATIONS	4 cr.

Total Required Credits: 93

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- 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.
- Apply fundamental principles and relationships from the Natural Sciences to solve problems. (GE)
- Communicate with various audiences using a variety of methods. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Analyze, interpret, and evaluate works and ideas in the Humanities within appropriate global and historical contexts. (GE)
- Practice a code of ethics prescribed by the professional organizations and state codes.

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 heavy industrial fabrication equipment and state-of-the-art welding equipment. The curriculum places equal focus on the development of fabrication skills and techniques. Student will be expected to not only demonstrate their proficiency with various weld processes but their ability to fabricate projects within specified tolerances using those processes.

The multiple certificates and degree options available within this program allow students the option to stop-out and enter the workforce, and re-enter the program as needed, or complete their program of study without stopping. Students enrolled in a welding program will have the opportunity to earn multiple American Welding Society certifications.

Welded Sculpture/Fabrication (CC)

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

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.

Flux Core Arc Welding (CA)

Major Area Requirements

HLTH 120	ADULT CPR AND FIRST AID	1 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 110	WELDING BLUEPRINT READING	5 cr.
WELD 142	FLUX CORE ARC WELDING	6 cr.
WELD 143	FLUX CORE ARC FABRICATION	6 cr.

Total Required Credits: 24

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/814G/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College.

After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terminology and safe practices related to Flux Core Arc Welding (FCAW) and cutting processes.
- Explain the use of FCAW electrodes.
- Demonstrate the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of FCAW weldments.
- Demonstrate Oxy Fuel Cutting and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

Gas Metal Arc Welding (CA)

Major Area Requirements

HLTH 120	ADULT CPR AND FIRST AID	1 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 110	WELDING BLUEPRINT READING	5 cr.
WELD 140	GAS METAL ARC WELDING	6 cr.
WELD 141	GAS METAL ARC FABRICATION	6 cr.

Total Required Credits: 24

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/814H/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Gas Metal Arc Welding (GMAW) and cutting processes.
- Explain the use of GMAW electrodes.
- Describe the functions of GMAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of GMAW weldments.
- Demonstrate Oxy/fuel Cutting and Plasma Arc Cutting principles of operation.
    - Interpret blueprints and specifications.

Gas Tungsten Arc Welding (CA)

Major Area Requirements

HLTH 120	ADULT CPR AND FIRST AID	1 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 110	WELDING BLUEPRINT READING	5 cr.
WELD 240	GAS TUNGSTEN ARC WELDING	6 cr.
WELD 241	GAS METAL ARC FABRICATION	6 cr.

Total Required Credits: 24

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/814C/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Gas Tungsten Arc Welding (GTAW) and cutting processes.
- Explain the use of GTAW electrodes.
- Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of GTAW weldments.
- Demonstrate Plasma Arc Welding and Plasma Arc Cutting principles of operation.
    - Interpret blueprints and specifications.

Shielded Metal Arc Welding (CA)

Major Area Requirements

HLTH 120	ADULT CPR AND FIRST AID	1 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 110	WELDING BLUEPRINT READING	5 cr.
WELD 144	SHIELDED METAL ARC WELDING	6 cr.
WELD 145	SHIELDED METAL ARC FABRICATION	6 cr.

Total Required Credits: 24

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/814D/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Shielded Metal Arc Welding (SMAW) and cutting processes.
- Explain the use of SMAW electrodes.
- Describe the functions of SMAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of SMAW weldments.
- Demonstrate Plasma Arc Welding and Plasma Arc Cutting principles of operation.
    - Interpret blueprints and specifications.

Welding Technician (CP)

General Education Requirements

Communication Skills (3 credits required)	3
Computational Skills (3 credits required)	3
Human Relations (3 credits required)	3

Major Area Requirements

HLTH 120	ADULT CPR AND FIRST AID	1 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 110	WELDING BLUEPRINT READING	5 cr.
WELD 140	GAS METAL ARC WELDING	6 cr.
and		
WELD 141	GAS METAL ARC FABRICATION	6 cr.
or		

ART 295	WELDED SCULPTURE THEORY I	1 cr.
and		
ART 296	WELDED SCULPTURE THEORY II	1 cr.
and		
ART 297	WELDED SCULPTURE THEORY III	1 cr.
and		
WELD 120	WELDED SCULPTURE LAB I	3 cr.
and		
WELD 121	WELDING SCULPTURE LAB II	3 cr.
and		
WELD 122	WELDED SCULPTURE LAB III	3 cr.
WELD 142	FLUX CORE ARC WELDING	6 cr.
WELD 143	FLUX CORE ARC FABRICATION	6 cr.
WELD 144	SHIELDED METAL ARC WELDING	6 cr.
WELD 145	SHIELDED METAL ARC FABRICATION	6 cr.
WELD 156	WELDING CERTIFICATION	2 cr.
WELD 240	GAS TUNGSTEN ARC WELDING	6 cr.
WELD 241	GAS METAL ARC FABRICATION	6 cr.

Total Required Credits: 71

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the http://www.clark.edu/academics/catalog/gainful-employment/814B/Gedt.html

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate proficiency in gas metal arc welding.
- Demonstrate proficiency in flux core arc welding.
- Demonstrate proficiency in gas tungsten arc welding.
- Demonstrate proficiency in shielded metal arc welding.
- Demonstrate proficiency in oxy/fuel cutting, plasma arc cutting and carbon-arc cutting processes.
- Demonstrate correct operation of metal working equipment.
- Interpret blueprints and specifications.

Welding Technologies (AAT)

General Education Requirements

Communication Skills **5**

Computational Skills **5**

Human Relations (5 credits required) **5**

Major Area Requirements

HLTH 120	ADULT CPR AND FIRST AID	1 cr.
WELD 102	INTRODUCTION TO WELDING	6 cr.
WELD 110	WELDING BLUEPRINT READING	5 cr.

WELD 140	GAS METAL ARC WELDING	6 cr.
and		
WELD 141	GAS METAL ARC FABRICATION	6 cr.
or		
ART 295	WELDED SCULPTURE THEORY I	1 cr.
and		
ART 296	WELDED SCULPTURE THEORY II	1 cr.
and		
ART 297	WELDED SCULPTURE THEORY III	1 cr.
and		
WELD 120	WELDED SCULPTURE LAB I	3 cr.
and		
WELD 121	WELDING SCULPTURE LAB II	3 cr.
and		
WELD 122	WELDED SCULPTURE LAB III	3 cr.
WELD 142	FLUX CORE ARC WELDING	6 cr.
WELD 143	FLUX CORE ARC FABRICATION	6 cr.
WELD 144	SHIELDED METAL ARC WELDING	6 cr.
WELD 145	SHIELDED METAL ARC FABRICATION	6 cr.
WELD 156	WELDING CERTIFICATION	2 cr.
WELD 240	GAS TUNGSTEN ARC WELDING	6 cr.
WELD 241	GAS METAL ARC FABRICATION	6 cr.
WELD 242	ADVANCED WIRE FEED WELDING	6 cr.
WELD 243	ADVANCED WIRE FEED FABRICATION	6 cr.
WELD 244	ADVANCED GAS TUNGSTEN ARC WELDING	6 cr.
WELD 245	ADVANCED GAS TUNGSTEN ARC FABRICATION	6 cr.

Total Required Credits: 105

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- 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.

Women's Studies

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 inequity. 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 (AC)

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)

Core courses must be completed with a grade of "C" or better.

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.

Electives (9-11 credits)

At least 3 elective credits must be WS prefix courses

ART 250	WOMEN ARTISTS THROUGH HISTORY	5 cr.
ENGL 140	WOMEN IN LITERATURE	3 cr.
ENGL 175	INTRODUCTION TO LGBTQ STUDIES	5 cr.
ENGL 254	INTRODUCTION TO QUEER LITERATURE	3 cr.

HIST&215	WOMEN IN U.S. HISTORY	5 cr.
HIST 251	WOMEN IN WORLD HISTORY I	5 cr.
HIST 252	WOMEN IN WORLD HISTORY II	5 cr.
HLTH 207	WOMEN'S HEALTH	2 cr.
SOC 230	DOMESTIC VIOLENCE	5 cr.
WS 210	WOMEN'S CULTURE	3 cr.
WS 225	RACISM & WHITE PRIVILEGE IN THE U.S.	3 cr.
WS 280	SELECTED TOPICS	1-3 cr.
WS 290	SPECIAL PROJECTS	1-5 cr.

Total Required Credits: 22-24

World Languages

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 the following areas:

- Spanish
- Japanese
- American Sign Language
- 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 Joyo

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.

American Sign Language (AC)

For students who want expertise in American Sign Language, this certificate may be earned along with a regular A.A. degree, and will be awarded upon graduation.

Core Courses

ASL 125	AMERICAN DEAF CULTURE	5 cr.
ASL& 221	AM SIGN LANGUAGE IV	5 cr.
ASL& 222	AM SIGN LANGUAGE V	5 cr.
ASL& 223	AM SIGN LANGUAGE VI	5 cr.
CMST&220	PUBLIC SPEAKING	5 cr.

Total Required Credits: 25

Section D:
Course Descriptions

SECTION D: Course Descriptions

Table of Contents

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]

PRINCIPLES 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& 201. 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 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, and 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, and 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), and consent of Instructional Unit. [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, and 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 professionals; relapse prevention techniques; screening that includes comorbidity. Prerequisite: ACED 101 or CDEP 101, and 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, and 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) and consent of Instructional Unit. [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, and consent of Instructional Unit. [GE]

AIR- AND BLOOD-BORNE PATHOGENS

ACED 170 3 Credits
33 hours of lecture

Skills to reduce impact of air- and blood-borne pathogens on addition clients. HIV/AIDS, pathogen, and suicidality brief risk intervention for the addiction client population. Community resources available to clients. Prerequisite: Consent of Instructional Unit. [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, and 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, and consent of Instructional Unit. [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, and 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, and consent of Instructional Unit. [GE]

FIELD PLACEMENT I

ACED 210 1 - 6 Credits
198 hours of clinical

Ten or twenty hours weekly of on-the-job supervised experience applying counseling theories and practiced. 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 1 - 6 Credits
198 hours of clinical

Ten or 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]

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]

PRIMATOLOGY
ANTH& 245 5 Credits
55 hours of lecture

Reviews current understandings of behavioral and biological diversity in the Primate order. Focus is on living primates and how they are distributed across the globe, the major biological differences between primate groups and what field and captive research has discovered regarding the range of social behaviors, group patterns, foods, communication systems and cognitive abilities they display. Students practice basic research techniques used to study primate behavior in the wild and examine the major challenges faced by modern conservation efforts in protecting wild primate habitats. [NS, SE]

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] [PNP]

OBSERVATIONAL DRAWING
ART 104 4 Credits
22 hours of lecture 44 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] [PNP]

CONTEMPORARY DRAWING PRACTICES
ART 105 4 Credits
22 hours of lecture 44 hours of lab

An interdisciplinary exploration of creative, critical, and analytical approaches to contemporary content and composition in a variety of media. Prerequisite: ART 103. [HB, SE] [PNP]

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] [PNP]

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] [PNP]

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] [PNP]

TIME-BASED ART AND DESIGN
ART 118 4 Credits
22 hours of lecture 44 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] [PNP]

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] [PNP]

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] [PNP]

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 will be helpful. 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 3 Credits
22 hours of lecture 22 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 CGT 101 or 102, or equivalent computer experience. [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, 273. Prerequisite: A grade of "C" or better in CGT 101 or 102, or equivalent computer experience. [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] [PNP]

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] [PNP]

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] [PNP]

METAL ARTS I

ART 189 4 Credits
22 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] [PNP]

METAL ARTS II

ART 190 4 Credits
22 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] [PNP]

METAL ARTS III

ART 191 4 Credits
22 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] [PNP]

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. Concurrent enrollment in ART 273 is encouraged for Graphic Design AFA and CP students. Prerequisite: CGT 102 and Consent of Graphic Design Program. [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]

SURVEY OF NON-WESTERN ART
ART 226 5 Credits
55 hours of lecture

Introduction to the visual arts and artifacts of the non-Western world, from prehistory to the present, to include the Middle East, the Pacific Islands, Africa, and the Americas. This survey course examines cultural and historical traditions, both in the secular and religious realms, as well as international contemporary art issues. Differences between Western and non-Western theories of art, aesthetics, values, and function will be explored. [HA, SE]

WOMEN ARTISTS THROUGH HISTORY
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 or 115. [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 103. [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] [PNP]

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. Concurrent enrollment in ART 270 is encouraged. Prerequisite: ART 174, CGT 103 and Consent of Graphic Design Program. [HB, SE]

GRAPHIC DESIGN HISTORY
ART 272 5 Credits
55 hours of lecture

A survey of influential individuals, artifacts, technologies and intellectual thought in graphic design from its origins to contemporary practice. Emphasis on the development of a visual vocabulary and providing historical and cultural context for design practice. [HA] [PNP]

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. Concurrent enrollment in ART 208 is encouraged for Graphic Design AFA and CP students. Prerequisite: ART 173, CGT 102 and Consent of Graphic Design Program. [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
55 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 Credit
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 Credit
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 Credit
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]

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 DEAF CULTURE
ASL 125 5 Credits
55 hours of lecture

This course will focus on topics in the culture of deaf people including studies of their beliefs, practices and language. [HA]

AM 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]

AM 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]

AM 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]

SELECTED TOPICS
ASL 280 1 - 3 Credits
33 hours of lecture

Course focuses on selected topics in American Sign Language. 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. [PNP]

SPECIAL PROJECTS
ASL 290 1 - 5 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit.

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

INTRODUCTION TO TOYOTA
AUTO 150 5 Credits
22 hours of lecture 66 hours of lab

Introduction to safety, service procedures and responsibilities as a Toyota automotive service professional. Focus on soft skills used in daily customer interactions, technical skills needed to be successful in the current Toyota dealership environment. Emphasis on performing Toyota minor, intermediate, and major maintenance operations. Acceptance into the T-Ten Program. Prerequisite: Must meet Clark Automotive entrance standards and have the recommendation of your sponsoring Toyota/Lexus service management. [GE]

TOYOTA ELECTRICAL I
AUTO 151 8 Credits
33 hours of lecture 110 hours of lab

First of two courses introducing basic electrical properties, circuits and testing. Major focus on the proper use of the DVOM in voltage drop diagnosis with an introduction to chassis electrical systems operation and testing. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 150. [GE]

TOYOTA ELECTRICAL II
AUTO 152 8 Credits
33 hours of lecture 110 hours of lab

Second of two courses exploring electrical properties, circuits and testing. Major focus on the proper use of the DVOM in voltage drop diagnosis of multiplexed circuits used in Toyota vehicles with an introduction to computer controlled electrical systems operation and testing using a DSO. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 151. [GE]

TOYOTA BRAKES
AUTO 153 8 Credits
33 hours of lecture 110 hours of lab

Theory and hands-on training in the operation, diagnostics, and service of Toyota vehicle braking systems. Initial focus on performing basic brake service procedures and diagnosis. Specific emphasis on the correct diagnostic strategies to locate and repair faults in ABS, VSC and VDIM systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 152. [GE]

TOYOTA INTERNSHIP I
AUTO 154 8 Credits
22 hours of lecture 198 hours of clinical

First managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the first quarter of automotive instruction, including performing basic maintenance and diagnosing/repairing electrical and braking systems. Emphasis on developing strong customer-service and teamwork skills. Students required to document and share these experiences while working towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 153. [GE]

TOYOTA STEERING AND SUSPENSION
AUTO 155 8 Credits
33 hours of lecture 110 hours of lab

Theory and hands-on training in the operation, diagnosis, and service of Toyota vehicle steering and suspension systems. Initial focus on performing basic tire, suspension and steering service procedures and diagnosis. Specific emphasis on the correct diagnostic strategies to locate and repair faults in TPMS and EPS systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 154. [GE]

TOYOTA ENGINE PERFORMANCE I

AUTO 156 8 Credits
33 hours of lecture 110 hours of lab

First of two courses on operation, inspection, diagnosis, service and repair of Toyota Engine Management systems. Focus on the operation and testing of the internal combustion engine and engine-and fuel-management systems. Emphasis on ignition, fuel delivery, and computer input sensor diagnosis. Necessary knowledge of diagnostic strategies and tools used daily in the dealership to repair drivability-related and/or engine performance-related issues. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 155.

TOYOTA ENGINE PERFORMANCE II

AUTO 157 8 Credits
33 hours of lecture 110 hours of lab

Second of two courses on operation, diagnosis, service and repair of Toyota Engine Management Systems. Focus on advanced level diagnostics including fuel trim, DTC's drivability, Mode $06 scan tool usage, and emissions control systems. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 156.

INTRODUCTION TO DEALERSHIP OPERATIONS

AUTO 160 5 Credits
22 hours of lecture 66 hours of lab

Introduction to safety, service procedures and responsibilities as a dealership automotive service professional. Initial focus will be soft skills used in daily customer interactions and will continue with technical skills needed to be successful in the current dealership environment. Finally, emphasis will be placed on performing minor, intermediate and major maintenance operations. Remain in good standing in the HiTECC Program. Prerequisite: Must meet Clark Automotive entrance standards and have the recommendation of your sponsoring dealership service management.

ELECTRICAL I

AUTO 161 8 Credits
33 hours of lecture 110 hours of lab

Introduction to basic electrical properties, circuits and testing. Major focus will be placed on the proper use of the DVOM in voltage drop diagnosis. Will also offer an introduction to Chassis Electrical Systems operation and testing. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 160.

ELECTRICAL II

AUTO 162 8 Credits
33 hours of lecture 110 hours of lab

Second in a series exploring electrical properties, circuits and testing. Major focus will be placed on the proper use of the DVOM in voltage drop diagnosis of multiplexed circuits used in Toyota vehicles. Will also include an introduction to computer controlled electrical systems operation and testing using a DSO. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 161.

BRAKES

AUTO 163 8 Credits
33 hours of lecture 110 hours of lab

Provides theory and hands-on training in the operation, diagnostics, and service of vehicle braking systems. Specific emphasis will be placed on the correct diagnostic strategies to locate and repair faults in ABS, VSC and VDIM systems. Initial focus will be placed on performing basic brake service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 162.

INTERNSHIP I

AUTO 164 8 Credits
22 hours of lecture 198 hours of clinical

Provides students with a managed internship experience in an automotive dealership. Students will focus on practicing skills learned throughout their first quarter of automotive instruction, including performing basic maintenance and diagnosing/repairing electrical and braking systems. Students will be required to document and share these experiences as they work toward ASE Certification. Emphasis will also be placed on developing strong customer service and teamworking skills. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 163.

STEERING AND SUSPENSION

AUTO 165 8 Credits
33 hours of lecture 110 hours of lab

Provides theory and hands-on training in the operation, diagnosis, and service of vehicle steering and suspension systems with specific emphasis on the correct diagnostic strategies to locate and repair faults in TPMS and EPS systems. Initial focus will be placed on performing basic tire, suspension and steering service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 164.

ENGINE PERFORMANCE I
AUTO 166 8 Credits
33 hours of lecture 110 hours of lab

Instruction related to the operation, diagnosis, service and repair of engine management systems. Initial focus is on the operation and testing of the internal combustion engine then progress to engine and fuel management systems. Emphasis will be placed on ignition, fuel delivery, and computer input sensor diagnosis. Students will gain necessary knowledge of diagnostic strategies and tools used daily in the dealership to repair drivability and/or engine performance related issues. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 165.

INTERNSHIP I
AUTO 167 8 Credits
33 hours of lecture 110 hours of lab

Instruction regarding the operation, diagnosis, service and repair of engine management systems. Focus on advanced level diagnostics including fuel trim, no DTC's driveability, mode $06 scan tool usage, and emissions control system diagnosis and repair. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 166.

AUTOMOTIVE PROCESSES
AUTO 170 3 Credits
33 hours of lecture

Introduction to and exploration of the automotive industry, with specific focus on vehicle service operations from a business standpoint. Students will complete a research assignment, write a paper, and deliver a presentation on their findings.

MECHANICAL PROCESSES
AUTO 171 5 Credits
44 hours of lecture 22 hours of lab

Expands on Automotive Process through demonstration and practice of vehicle servicing methods. Students will prepare vehicles for service and perform basic maintenance procedures in accordance with manufacturer's recommendations. Emphasis on safety, using proper equipment, and overall vehicle systems. Combination lecture/lab format will be utilized for instruction. Prerequisite: Completion of or concurrent enrollment in AUTO 170.

MAINTENANCE PROCESSES
AUTO 172 8 Credits
44 hours of lecture 88 hours of lab

Emphasis on maintenance procedures and processes performed in express service environments. Particular attention paid to practice of comprehensive vehicle inspection and preventative maintenance operations. Introduction to tire service procedures also included in the course. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. Prerequisite: Successful completion of both AUTO 170 (Automotive Processes) and AUTO 171 (Mechanical Processes).

UNDERCAR SERVICE AND REPAIR
AUTO 173 15 Credits
110 hours of lecture 110 hours of lab

Undercar maintenance processes with addition of light chassis repair procedures. Inspection and repair of brake systems, including minor diagnosis of common customer concerns, will be practiced. In addition, steering/suspension inspection and service will be presented. Continuation of tire servicing related to wheel alignment also included in course. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. Prerequisite: A grade of "C" or better in AUTO 172 (Maintenance Processes).

UNDERHOOD SERVICE AND REPAIR
AUTO 174 15 Credits
110 hours of lecture 110 hours of lab

Underhood maintenance processes with addition of light engine repair procedures. Minor diagnosis of common cylinder sealing faults and engine leak repair will be practiced. Introduction to engine controls and minor system diagnosis included. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. Prerequisite: A grade of "C" or better in AUTO 172 (Maintenance Processes).

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]

TOYOTA CLIMATE CONTROL
AUTO 250 8 Credits
33 hours of lecture 110 hours of lab

Introduction to automotive heating and air conditioning systems used in Toyota vehicles. Topics include refrigerant handling, climate control system components, temperature system controls, refrigerant system diagnosis, recovery-recycling-recharging a/c systems, safety requirements for hybrid vehicles and dealership service. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 157. [GE]

TOYOTA INTERNSHIP II
AUTO 251 8 Credits
22 hours of lecture 198 hours of clinical
Second managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the second quarter of automotive instruction. Skills include performing repairs to braking, steering/suspension, and engine management systems. Emphasis on developing strong customer-service and teamwork skills. Students required to document and share these experiences while working towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 250. [GE]

TOYOTA ENGINE MECHANICAL
AUTO 252 8 Credits
33 hours of lecture 110 hours of lab
Operation, diagnosis, service and repair of a Toyota internal-combustion engine with focus on the tear-down and inspection of internal engine components. Emphasis on precision measurements and component failure identification. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 251. [GE]

TOYOTA MANUAL TRANSMISSION
AUTO 253 8 Credits
33 hours of lecture 110 hours of lab
Introduction to automotive manual transmissions and drivetrains. Topics include the principles of torque multiplication, engine braking, and gear ratios. Emphasis on the diagnosis and repair of clutch assembly, manual transmission, transfer cases, and drivetrains of Toyota vehicles. Acceptance in and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 252. [GE]

AUTOMATIC TRANSMISSIONS
AUTO 254 8 Credits
33 hours of lecture 110 hours of lab
Theory and hands-on training in the operation, diagnostics, and service of Toyota automatic transmissions and transaxles. Initial focus on performing basic automatic transmission service procedures and diagnosis with specific emphasis on the correct diagnostic strategies to locate and repair faults in automatic transmission control systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 253. [GE]

TOYOTA INTERNSHIP III
AUTO 255 8 Credits
22 hours of lecture 198 hours of clinical
Third managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the third quarter of automotive instruction. Skills include performing repairs to engines, transmissions, and drivetrains. Emphasis on developing strong customer service and teamworking skills. Students required to document and share these experiences as they work towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. Prerequisite: A grade of "C" or better in AUTO 254. [GE]

CLIMATE CONTROL
AUTO 260 8 Credits
33 hours of lecture 110 hours of lab
Instruction in automotive heating and air conditioning systems used in vehicles. Covers refridgerant handling, climate control system components, temperature system controls, refridgerant system diagnosis, recovery-recycling-recharging a/c systems, safety requirements for hybrid vehicles and dealership service. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 167.

INTERNSHIP II
AUTO 261 8 Credits
22 hours of lecture 198 hours of clinical
Provides students with a managed internship experience in a dealership. Students will focus on practicing skills learned throughout their second quarter of automotive instruction performing repairs to Steering/Suspension, Climate Control, and Engine Management Systems. Students will be required to document and share these experiences as they work towards ASE certification. Emphasis will also be placed on developing strong customer service and teamworking skills. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 260.

ENGINE MECHANICAL
AUTO 262 8 Credits
33 hours of lecture 110 hours of lab
Instruction regarding the operation, diagnosis, service and repair of internal combustion engines. Focus on the tear down and inspection of internal engine components. Emphasis will be placed on precision measurements and components failure identification. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 261.

MANUAL TRANSMISSION
AUTO 263 8 Credits
33 hours of lecture 110 hours of lab
Instruction in automotive manual transmissions and

drivetrains. Students will explore the principles of torque multiplication, engine braking, and gear ratios. Emphasis will be placed on the diagnosis and repair of clutch assemblies, manual transmissions, transfer cases, and vehicle drivetrains. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 262.

AUTOMATIC TRANSMISSIONS

AUTO 264 8 Credits
33 hours of lecture 110 hours of lab

Theory and hands-on training in the operation, diagnostics, and service of automatic transmissions and transaxles. Specific emphasis will be placed on the correct diagnostic strategies to locate and repair faults in automatic transmission control systems. Initial focus will be placed on performing basic automatic transmission service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 263.

INTERNSHIP III

AUTO 265 8 Credits
22 hours of lecture 198 hours of clinical

Provides students with a managed internship experience in a dealership. Students will focus on practicing skills learned throughout their third quarter of automotive instruction including performing repairs to engines, transmissions, and drivetrains. Students will be required to document and share these experiences as they work towards ASE Certification. Emphasis will also be placed on developing strong customer service and teamworking skills. Remain in good standing in the HiTECC Program. Prerequisite: A grade of "C" or better in AUTO 264.

DRIVER COMFORT AND CONVENIENCE SYSTEMS

AUTO 271 15 Credits
110 hours of lecture 110 hours of lab

HVAC and safety system maintenance and service processes. Some light repair procedures will be practiced. Also includes body electrical diagnosis using diagrams, DMMs, and scan tools. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. Prerequisite: Successful completion of all AUTO 170, 171, 172, 173 and 174 with a "C" or better.

ADVANCED DIAGNOSTIC STRATEGIES

AUTO 272 15 Credits
110 hours of lecture 110 hours of lab

Vehicle electronic systems inspection, diagnosis and repair processes using advanced diagnostic tools. Focus on troubleshooting processes that lead to identification of root cause failures. Also, introduction to vehicle stability control and supplemental restraint systems included. While a combination of lecture/lab will be utilized for instruction course will be delivered primarily through lab activities. Prerequisite: Successful completion of all AUTO 170, 171, 172, 173 and 174 with A grade of "C" or better.

CAPSTONE NEW TECHNOLOGY

AUTO 273 4 Credits
11 hours of lecture 66 hours of lab

An alternative to a internship in which students will study a new automotive technology of their choice. Final project will vary with each instructor. Prerequisite: Successful completion of AUTO 271 and 272 with A grade of "C" or better.

INTERNSHIP

AUTO 274 4 Credits
11 hours of lecture 99 hours of lab

Managed field experience course designed to provide reflective activities aimed at assisting students in creating a professional development plan. Students will participate in online activities coupled with periodic on-site evaluations. This option provided for students with an automotive service position and ready to work. Course will be delivered primarily through online interface with several worksite visits by instructor. Prerequisite: Successful completion of AUTO 271 and 272 with A grade of "C" or better.

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]

Biology

SURVEY OF BIOLOGY

BIOL& 100 5 Credits
44 hours of lecture 33 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. Formerly BIOL 104. Credit not allowed for BIOL 104, BIOL& 100, BIOL 105, and AG/BIOL 175. [NS, SE]

ENVIRONMENTAL BIOLOGY

BIOL 101 5 Credits
33 hours of lecture 44 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]

SMALL WORLD BIOLOGY-SEARCH FOR NEW ANTIBIOTICS

BIOL 105 5 Credits
33 hours of lecture 44 hours of lab

Investigative course involving authentic research to discover potentially new antibiotics. Overview of basic concepts and issues in biology including the cellular basis of life, metabolism, principles of inheritance, evolution and ecology as they relate to soil microbiology and human disease processes and treatment. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, 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. [GE, SE, NS] [PNP]

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]

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]

GENERAL BIOLOGY W/LAB

BIOL& 160 5 Credits
33 hours of lecture 44 hours of lab

Introduction to the study of the cell, the basic component of all living organisms. Emphasis on cell chemistry, structure, metabolism, energetics, cell division and genetic principles. Intended for students seeking a two-year degree in the health occupations. Lab work is required. Successful completion fulfills pre-requisite for BIOL& 241, BIOL& 251, and BIOL& 260. [GE, SE, NS] [PNP]

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 Credit
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] [PNP]

HUMAN GENETICS LABORATORY

BIOL 168 2 Credits
44 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]

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
33 hours of lecture 44 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. [NS, SE]

MAJORS CELL/MOLECULAR

BIOL& 222 5 Credits
33 hours of lecture 44 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). [NS, SE]

MAJORS ORGANISMAL PHYS

BIOL& 223 5 Credits
33 hours of lecture 44 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. [NS, SE]

FLOWERING PLANTS OF THE PACIFIC NORTHWEST

BIOL 224 5 Credits
33 hours of lecture 44 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 ANATOMY AND PHYSIOLOGY I

BIOL& 241 5 Credits
33 hours of lecture 44 hours of lab

The first in a two-quarter sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, terminology, histology, the integumentary, skeletal, articular, muscular, nervous, and endocrine systems. Concurrent enrollment in BIOL& 241L. Prerequisite: A grade of "C" or better in BIOL& 160 or department approval. [NS, SE]

HUMAN ANATOMY AND PHYSIOLOGY II

BIOL& 242 5 Credits
33 hours of lecture 44 hours of lab

The second in a two-quarter sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive systems and fluid and electrolyte balance. Concurrent enrollment in BIOL& 242L. Prerequisite: A grade of "C" or better in BIOL& 241 or department approval. [NS, SE]

HUMAN A & P I

BIOL& 251 5 Credits
33 hours of lecture 33 hours of lab

The first in a three-quarter sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, terminology, cells, protein synthesis, DNA replication, histology, the integumentary, skeletal, articular, and muscular systems, and bone, muscel and membrane physiology. Formerly BIOL 231. Credit is not allowed for both BIOL& 251 and BIOL 231. Concurrent enrollment in BIOL& 251L. Prerequisite: A grade of "C" or better in BIOL& 100 or BIOL& 160 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 5 Credits
33 hours of lecture 33 hours of lab

The second in a three-quarter sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, neural tissue, the spinal cord and spinal nerves, the brain and cranial nerves, integration of neural function, the special senses, the endocrine and reproductive systems, development and inheritance. Formerly BIOL 232. Credit is not allowed for both BIOL& 252 and BIOL 232. Concurrent enrollment in BIOL& 252L required. Prerequisite: A grade of "C" or better in BIOL& 251 or written consent of Instructional Unit. [NS, SE]

HUMAN A & P III

BIOL& 253 5 Credits
33 hours of lecture 33 hours of lab

The third in a three-quarter sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, the cardiovascular, lymphatic, digestive, respiratory and urinary systems, cellular metabolism, and fluid and electrolyte balance. Formerly BIOL 233. Credit is not allowed for both BIOL& 253 and BIOL 233. 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. [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: BIOL& 160 or consent of instructor. Formerly BIOL 240. [NS, SE]

HUMAN CADAVER DISSECTION

BIOL 275 1 - 6 Credits
66 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 Technology Medical Office

MATH FOR HEALTH CARE PROFESSIONALS
BMED 103 3 Credits
33 hours of lecture

Mathematical concepts related to both administrative and dosage calculations for the physician's office, clinic, or emergi-center. Prerequisite: Eligibility for MATH 030 or higher via placement score or prerequisite coursework. [CP]

STATISTICS FOR HEALTH CARE PROFESSIONALS
BMED 105 2 Credits
22 hours of lecture

Introduction to statistical computations and analysis used in healthcare. Topics include patient census, occupancy, length of stay, mortality and morbidity statistics. Prerequisite: A grade of "C" or better in BMED 103 or BUS 102. [CP]

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] [PNP]

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] [PNP]

INTRODUCTION TO PATHOPHYSIOLOGY
BMED 112 5 Credits
55 hours of lecture

Introduction to the general mechanisms of systemic disease including etiology, physical signs and symptoms. Etiology focus will include infectious mechamisms, hereditary conributions, external physical agents and autoimmune conditions. Discussions of differences between disease and illness to include basic principles of pharmacology laboratory and diagnostic tests, overview of common therapies, prognosis and public health issues. Prerequisite: A grade of "C" or better in BMED 111 and BIOL 164/165 or HEOC 100. [GE] [PNP]

MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I
BMED 116 3 Credits
22 hours of lecture 22 hours of lab

Introduction to administrative positions in the medical field. Students gain introductory administrative competencies compliant with CAAHEP and other related professional organizations. The lab portion of the class prepares the student in medical office competencies and relevant software. Strong teamwork and time management skills are necessary to be successful in this rigorous course. Cannot receive credit for both BMED 115 and 116/117. Prerequisite: Completion of, or concurrent enrollment in, BMED 110 and completion of BTEC 149 or 150, or instructor permission. [GE]

MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II
BMED 117 3 Credits
22 hours of lecture 22 hours of lab

Students will complete the competencies and coursework needed to successfully perform administrative and management duties in an outpatient medical clinic. This course continues where BMED 116 leaves off, offering the continuing student more coding, financial tasks, accounting practices, office management and human resource duties. Strong teamwork and time management skills are necessary to be successful in this rigorous course. Cannot receive credit for both BMED 115 and 116/117. Prerequisite: Completion of BMED 116 or instructor permission. [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 profes-

sional 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: A grade of "C" or better in BMED 110. [GE] [PNP]

MEDICAL CODING - CPT/HCPCS

BMED 130 4 Credits
44 hours of lecture

Introduction to procedural coding in ambulatory settings using the CPT Code Set and HCPCS (Health Care Financing Common Procedure Coding System). Student is introduced to the symbols, terminology and methods of procedural coding used by physicians and third parties and is guided step-by-step through various procedural coding scenarios by means of workbook exercises and actual case studies. The format and guidelines of the CPT and HCPCS code sets are reviewed to include E/M codes and modifiers. Reviews medical/surgical terminolgy, surgical/anatomical procedures, anesthesia, pharmaceuticals, and durable medical goods. Looks at CPT's position as it relates to ICD-9 and ICD-10 in today's coding world. Prerequisite: A grade of "C" or better in BMED 111. [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 Credit
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] [PNP]

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]

MA ASSISTANT EXAMINATION REVIEW

BMED 139 2 Credits
22 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 the NCCT Medical Assisting certification and the CMA certifications. Students will have a registration date to complete both exams by class completion. Concurrent enrollment in BMED 166 required. Prerequisite: A grade of "C" or better in BMED 163, 164 and 165 or consent of Instructional Unit. [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 BMED 130 and FACPR 032 required or consent of Instructional Unit. Prerequisite: A grade of "C" or better in BMED 105, 112, 117, 129, 132, 138, HEOC 120 and CMST& 230 and consent of 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 BMED 137 and 165 required or consent of Instructional Unit. Prerequisite: A grade of "C" or better in BMED 163 or consent of Instructional Unit. [GE]

MEDICAL OFFICE LABORATORY PROCEDURES

BMED 165 4 Credits
22 hours of lecture 44 hours of lab

Introduction to specimen collection and processing. Performing basic CLIA waived hematology, chemistry and immunology testing; microscopic urine tests including gram smears; basic culture techniques and blood typing. Equipment use and maintenance, re-agent storeage and handling. Quality control measures. Lab safety emphasized. Cannot receive credit for both HEOC 160 and BMED 165. Concurrent enrollment in BMED 137 and 164 required or consent of Instructional Unit. Prerequisite: A grade of "C" or better in BMED 163 or consent of Instructional Unit. [GE]

MEDICAL ASSISTANT PRACTICUM

BMED 166 6 Credits
11 hours of lecture 165 hours of clinical

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. Concurrent enrollment in BMED 139 required. Prerequisite: A grade of "C" or better in BMED 164, 165 and consent of Instructional Unit. [GE, HR]

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. Topics include: licensing, regulation, and accreditation of health care facilities, hospital organization, patient registration, health care statistics, medical record content, medical record assembly, analysis and coding. CPT coding (ICD-9-CM and ICD-10-CM) will be introduced as well as a review of other medical classifications of nomenclatures classification and nomenclatures. Completion of, or concurrent enrollment in BIOL 164/165 or HEOC 100, or consent of Instructional Unit. Prerequisite: A grade of "C" or better in BMED 103 and 105. [GE] [PNP]

MEDICAL OFFICE PRACTICUM

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, HR]

MEDICAL OFFICE PRACTICUM

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, HR]

HEALTH DATA CONTENT AND STRUCTURE

BMED 227 3 Credits
22 hours of lecture 22 hours of lab

Analysis and utilization of health record content with emphasis on physician's orders, clinical lab tests, diagnos-

tic and treatment modalities and pharmacology and an overview of applicable consent and confidentiality principles. Students will participate in hands-on lab application of healthcare procedures via the AHIMA web-based Virtual lab. Prerequisite: Completion of with a grade of "C" or concurrent enrollment in BMED 222. [CP]

MEDICAL DOCUMENT MANAGEMENT AND TECHNOLOGY

BMED 228 3 Credits
33 hours of lecture

Fundamental principles in identifying and applying inpatient and outpatient records and reports. Strong skills in English, spelling and grammar, medical terminology, attention to detail, proofreading, and quality assurance are recommended. Completion of with a grade of "C" or concurrent enrollment in BMED 222. Prerequisite: A grade of "C" or better in BMED 222, or consent of Instructional Unit.

HIIM DIRECTED PRACTICE

BMED 229 1 Credit
33 hours of clinical

Supervised learning in a clinic, medical center, campus, or other health care facility to practice medical office administrative and HIIM responsibilities. Topics include extrapolating, correcting, anayzing for completeness, abstracting reports for release of information (ROI), dodding, billing and communication competencies using actual electronic medical records and medical charts. Provides students the application of classroom and laboratory objectives in a supervised affiliation site. Performed under leadership of a registered health information administrator or registered health information technician. Prerequisite: Successful completion of the following: BMED 116, 222 and 228 or Consent of the Instructional Unit.

INTRODUCTION TO PATIENT NAVIGATION & ADVOCACY

BMED 233 5 Credits
55 hours of lecture

Introduction to the knowledge, skills, and attitudes necessary to apply care navigation for the benefit of the client. The content focuses on the healthcare systems, client profiles and needs, communication basics, an introduction to chronic illness, and health coaching.

INTERMEDIATE PATIENT NAVIGATION & ADVOCACY

BMED 234 5 Credits
55 hours of lecture

Builds on the foundations developed in Introduction of Patient Navigation & Advocacy. Additional topics covered are care coordination and navigation, client characteristics, an overview of behavioral health, strategies to influence outcomes, and advanced communications. Prerequisite: Successful completion with a "C" or better in BMED 233 or consent of the Instructional Unit.

ADVANCED PATIENT NAVIGATION & ADVOCACY

BMED 235 5 Credits
55 hours of lecture

Builds on the concepts covered in Intermediate Patient Navigation & Advocacy. Additional topics covered are care transitions, preventive healthcare, continued discussion of chronic illness, end of life care, and challenges particular to care navigation. Prerequisite: Successful completion with a "C" or better in BMED 234 or consent of the Instructional Unit.

AGING AND THE AGING POPULATION

BMED 237 2 Credits
22 hours of lecture

Covers topics surrounding the specific needs, conditions and support for the aging population to include strategies leading toward positive patient experience and outcomes. This coursework is highly recommended for all students who might work with or care for an elderly person. [GE]

BEHAVIORAL HEALTH AND CARE COORDINATION

BMED 238 2 Credits
22 hours of lecture

Topics covered in this course address the specific needs, conditions and support for patiens with mental or behavioral health issues. In addition to an overview of mental/behavioral health this course will deal specifically with Mental Health First Aid, how to deal with anxiety, depression, suicide and other common mental/behavioral health issues including strategies leading toward positive patient experience and outcomes. [GE]

INTERMEDIATE ANATOMY AND PHYSIOLOGY

BMED 242 3 Credits
22 hours of lecture 22 hours of lab

Expanded exploration of human anatomy and physiology with an emphasis on medical record extrapolation, analysis of medical procedures, continuation of pathophysiology as applied to medical coding and health information management. The student will apply prerequisite coursework to common procedures, treatments and standard of care with consideration and exploration of current laws, such as the Affordable Care Act and Meaningful Use and their impact on patient care, billing and health information management. Prerequisite: Successful completion with a "C" or better of BMED 112 and BMED 132.

MEDICAL OFFICE CAPSTONE PRACTICUM
BMED 250 3 Credits
22 hours of lecture 33 hours of clinical

Supervised learning in a simulated health care environment where students will be extrapolating, correcting, analyzing for completeness; abstracting reports for release of information (ROI); coding and billing using actual electronic medical records and charts. In addition, students will develop in-depth knowledge of career opportunities and medical administrative team environments. Prerequisite: A grade of "C" or better in BMED 222 or 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.

Business Technology

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] [PNP]

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] [PNP]

REFRESHER KEYBOARDING
BTEC 103 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. Cannot receive credit for both BTEC 103 and BTEC 190. [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] [PNP]

APPLIED OFFICE ENGLISH
BTEC 106 3 Credits
33 hours of lecture

Fundamental skills in the use of reference materials, spelling, business vocabulary, editing, word usage, grammar, sentence structure, and punctuation and practice in basic writing skills for business letters, memorandums, and emails. Students who have already completed BTEC 087 or BTEC 107 should not take this course. Prerequisite: Eligibility for ENGL 098. [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: Eligibility for ENGL 098. [C, SE]

INTRODUCTION TO OUTLOOK
BTEC 114 1 Credit
11 hours of lecture

This course is designed to give students an overview of Outlook. Students will be introduced to email etiquette, calendaring functions, and create and organize contacts, and compose and deal with email messages. [GE] [PNP]

APPLICATION ESSENTIALS: WORD
BTEC 116 1 Credit
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] [PNP]

APPLICATION ESSENTIALS: EXCEL
BTEC 117 1 Credit
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] [PNP]

APPLICATION ESSENTIALS: POWERPOINT
BTEC 118 1 Credit
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] [PNP]

INTRODUCTION TO WORD
BTEC 120 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 for this course will be Microsoft Word. Cannot receive credit for both BTEC 120 and 125. [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] [PNP]

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] [PNP]

10-KEY CALCULATOR
BTEC 135 1 Credit
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] [PNP]

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] [PNP]

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] [PNP]

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] [PNP]

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] [PNP]

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]

BUSINESS PROFESSIONAL SELF DEVELOPMENT
BTEC 148 3 Credits
33 hours of lecture

This course is designed to give students an overview of the job search process and will also explore the importance of developing and using soft skills in a business setting. Students will learn professional business concepts and communication skills improving themselves, the companies they represent and the public they serve. For employees or prospective employees who wish to improve their professional relations and growth potential. [HR] [PNP]

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, Excel 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] [PNP]

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] [PNP]

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] [PNP]

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 BUS 102 (formerly MATHB 065) or equivalent score on COMPASS placement or consent of Instructional Unit. [GE] [PNP]

ACCESS FOR BUSINESS
BTEC 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" The course does assume knowledge of Microsoft Windows. Also offered as CTEC 180. Cannot receive credit for both BTEC 180 and CTEC 180. [GE]

E-COMMERCE: INTRO TO BUSINESS ON THE WEB

BTEC 195 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. Cannot receive credit for BTEC 195 and 212. [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]

DOCUMENT FORMATTING

BTEC 201 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. Cannot receive credit for both BTEC 201 and 102. Prerequisite: BTEC 101 (or 103) and BTEC 120 (or 122). [GE]

SPEED AND ACCURACY BUILDING

BTEC 203 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. Cannot receive credit for both BTEC 203 and 010. Prerequisite: BTEC 201 or 102 or consent of Instructional Unit. [GE]

INTRODUCTION TO SHAREPOINT

BTEC 207 3 Credits
33 hours of lecture

This course is designed to give students an overview of the content management system SharePoint and its application for use in a business environment. Prerequisite: Completion of BTEC 149 or 150 or BTEC 120 or 122, BTEC 169, and CTEC 102 or consent of Instructional Unit. [CP] [PNP]

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] [PNP]

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 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. [PNP]

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. [PNP]

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. [PNP]

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] [PNP]

BUSINESS MATH APPLICATIONS
BUS 102 5 Credits
55 hours of lecture

Application of mathematics in common business situations. Emphasis is on practical applications and problem-solving skills for the business professional as well as the consumer and investor. Topics include: trade and cash discounts, simple and compound interest, mark up and mark down, and consumer credit. Cannot receive credit for both BUS 102 and MATHB 065. Prerequisite: Qualifying score on the college numerical skills placement for MATH 089 or higher or consent of Instructional Unit. [CP]

INTRODUCTION TO INTERNATIONAL BUSINESS
BUS 105 3 Credits
33 hours of lecture

A survey course, as well as a preparatory course for advanced study, of globalization and international business issues discussed include the history and development of international business, international institutions, regional alliances, sociocultural and political forces, national resources and environmental sustainability, labor forces, and the development of international competitive strategy.

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] [PNP]

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] [PNP]

MERCHANDISING MANAGEMENT
BUS 116 3 Credits
33 hours of lecture

Introduction to merchandising management. Topics include retail buying and merchandising functions, negotiation techniques, management of incoming/outgoing merchandise and inventory, mathematics of merchandising, analysis of vendor performance, sales forecasting, and creating a merchandising plan. [GE] [PNP]

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] [PNP]

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] [PNP]

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]

INTRODUCTION TO ENTREPRENEURSHIP
BUS 139 5 Credits
55 hours of lecture

Learn what makes a successful entrepreneur, the tools an entrepreneur needs to start a business, and the opportunities and pitfalls faced by an entrepreneur. [GE] [PNP]

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] [PNP]

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] [PNP]

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. Knowledge of Excel highly recommended. Prerequisite: MATH 095 or equivalent or consent of Instructional Unit. [SE]

INFERENTIAL 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. Knowledge of Excel recommended. Prerequisite: Completion of BUS 203 or MATH 203 with a "C" or better or consent of Instructional Unit. [SE]

INTRODUCTION TO E-BUSINESS
BUS 210 5 Credits
55 hours of lecture

Introduction to e-Business includes topics such as email, EFT (electronic fund transfers), barcoding, etc.. This will be a 5 credit course that deals with the fundamentals of conducting business online. This course will help assist students better understand the strategies on conducting business online. Other issues include, international standards, ethics, business strategy, electronic marketing. Examination of e-Business in altering the structure of entire industries, and how it affects business processes including electronic transactions, supply chains, decision making and organizational performance. The exponential growth in the last few years of the Internet and its related technologies has created new ways of communication and trading. [PNP]

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]

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] [PNP]

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] [PNP]

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]

Computer Aided Design and Drafting Technology

CADD ORIENTATION
CADD 101 1 Credit
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 Credit
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 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 Rhinoceros, a 3D surface modeling software of interest to students in engineering, industrial design, and graphic design. Creating and editing of curves, surfaces, solids, and textures and lighting effects. Includes the use of plug-ins for rendering. 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. Screen features, drawing and editing objects, working with 2D, using both model space and layouts, dimensioning and dimension styles, using blocks, attributes, and xrefs, opening and saving files, and using templates. Recommended for anyone comfortable using a PC. [GE]

ARCHITECTURAL DRAFTING 1
CADD 141 4 Credits
16 hours of lecture 55 hours of lab

Beginning foundations of architectural drafting using AutoCAD Architecture. Topics include terminology, architectural symbols and standards, line weights and layer management. A standard multi-sheet drawing set for a residence will be developed and will include a site plan, foundation plan, floor plan, and elevations, and related basic residential construction processes. Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 140 or CADD 140. [GE]

INTERMEDIATE AUTOCAD
CADD 142 2 Credits
11 hours of lecture 22 hours of lab

A continuation of AutoCAD. Topics covered include: review and continued work with blocks, attributes, and xref's; creating and using dynamic blocks; using annotated text and dimension text; and an introduction to 3D. Prerequisite: A grade of "C" or better in ENGR 140 or CADD 140.

CIVIL DRAFTING 1 WITH CIVIL 3D
CADD 143 4 Credits
16 hours of lecture 55 hours of lab

Beginning foundations of civil drafting concepts and practices. Introduction to terminology, symbols, multiple use blocks and details, origins and uses of survey data, contours, alignments, and profiles to describe/define project objects. Topics will include basic site considerations, basic types and construction of roads, site drainage, sewer systems, potable water, walks, driveways, and fire access. Class projects will use various applications to achieve data tables and calculations; drafting is not platform dependent but is biased towards use of AutoCAD. Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 140 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: RESIDENTIAL
CADD 170 4 Credits
16 hours of lecture 55 hours of lab

Basic operations of the current version of Revit, as used in residential architechural 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]

REVIT: COMMERCIAL
CADD 171 4 Credits
16 hours of lecture 55 hours of lab

Revit Commercial will continue to build on the basic tools covered in the Basic Revit Residential course. This is a project-based course and will focus on building a commercial office building using the basic tools, but also focusing on more advanced tools required to complete a commercial project. Topics include: grids, reflected ceiling plans, interior and exterior elevations sections, interior design, schedules, site rendering, view templates, construction documents setup and work-sharing. Prerequisite: A grade of "C" or better in CADD 170. [GE]

COOPERATIVE WORK EXPERIENCE
CADD 199 1 - 6 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

Concepts of design and graphic principles for developing a variety of visual presentations by applying different graphic forms used for advertising, and showcasing graphic skills by producing portfolio quality work. Prerequisite: A grade of "C" or better in CADD 141, CADD 143, 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 142. [GE]

TECHNICAL STATICS & STRENGTHS
CADD 215 3 Credits
22 hours of lecture 22 hours of lab

Introduction to technical statics and strength of materials. Topics introduced include 2D force and moment systems, static equilibrium, mechanical properties, stress and strain, beams and trusses, buckling, and moment of inertia. Concurrent enrollment in CADD 216. Prerequisite: A grade of "C" or better in MATH 103. [GE]

INTEGRATED COMPUTATIONAL DESIGN
CADD 216 3 Credits
11 hours of lecture 44 hours of lab

Use of computational SolidWorks Simulation CADD applications in the design and analysis of engineering problems. Also, use of integrated surface/solid modeling techniques, motion analysis, and use of CADD in documentation of designs and analyses. Concurrent enrollment

in CADD 214 Prerequisite: A grade of "C" or better in ENGR 150 or CADD 150, and MATH 103. [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 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. [GE]

College and Academic Preparation

JUMPSTART: READING & WRITING
CAP 005 1 - 6 Credits
66 hours of lecture
Development of standards-based reading and writing skills in the contexts of science and social studies to successfully transition into appropriate High School 21 courses. Prerequisite: Current CASAS test scores in Math and Reading. Minimum score of 211-255 on CASAS Reading test.

JUMPSTART: MATH
CAP 006 1 - 6 Credits
66 hours of lecture
Development of standards-based math skills in order to successfully transition into appropriate leve of High School 21 courses. Prerequisite: Current CASAS test scores in Math and Reading. Score of 211-255 on CASAS Math Test.

INTENSIVE FAST TRACK 1: PORTFOLIO
CAP 011 2 Credits
22 hours of lecture
Improve the ability to listen actively, speak so others can understand, read with understanding, and convey ideas in writing while developing a career portfolio. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: WRITTEN COMMUNICATION
CAP 012 6 Credits
66 hours of lecture
Improve the ability to read with understanding and convey your ideas in writing. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: ORAL COMMUNICATION
CAP 013 3 Credits
33 hours of lecture
Improve the ability to listen actively and speak so others can understand. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2,

Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening OR successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1:TECHNOLOGY

CAP 014 3 Credits
33 hours of lecture

Improve the ability to use technology. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening OR successful completion of Intensive Explorations (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: STUDY SKILLS

CAP 015 2 Credits
22 hours of lecture

Strengthen study skills and reflect on various strategies and characteristics of successful college students. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening OR successful completion of Intensive Explorations (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

FAST TRACK 1: ORAL COMMUNICATION/TECHNOLOGY

CAP 016 5 Credits
55 hours of lecture

Development of computer skills to support your ability to listen actively and speak so others can understand in the context of college and work. Upon successful completion of Fast Track 1 (both CAP 016 and CAP 018), students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. OR successful completion of Intensive Explorations (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

FAST TRACK 1: WRITTEN COMMUNICATION/TECHNOLOGY

CAP 018 5 Credits
55 hours of lecture

Development of computer skills as you improve your ability to read with understanding and convey your ideas in writing. Upon successful completion Intensive Fast Track 1 (both CAP 016 and CAP 018), students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. OR successful completion of Intensive Explorations (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

FAST TRACK 2: COMMUNICATION FOR COLLEGE TRANSITION

CAP 021 5 Credits
55 hours of lecture

Development of both oral and written communication skills both face-to-face and on-line, focusing on college readiness. Upon successful completion of Fast Track 2: Communication for College Transition, students will have gained the skills to transition into Integrated English CAP coursework or I-BEST. HS21+ students will also receive elective credit toward their HS21+ diploma. Prerequisite: Current CASAS test scores in all skills. CASAS test score 221 or higher in reading. OR successful completion of Intensive Fast Track 1 (CAP 011, CAP 012, CAP 013, CAP 014, CAP 015) or Fast Track 1 (CAP 016, CAP 018).

INTEGRATED MATH AND OCCUPATIONS

CAP 040 8 Credits
88 hours of lecture

For students needing to learn or review math fundamentals. Students will apply their math skills (e.g. whole numbers, fractions, decimals, integers, percents, basic geometry, standard American measurement, basic tables/graphs) in various occupational contexts. Successful completion of the course will provide 1 credit for Math and 1 credit for Occupational Education toward the HS21+ diploma. Prerequisite: CASAS Math score up to 220.

INTEGRATED MATH AND SCIENCE

CAP 042 8 Credits

88 hours of lecture

Students will apply their math skills (e.g. using integers, fractions, mixed numbers, order of operations, proportions, percents, algebraic expressions, multi-step equations, Metric system, standard and scientific notation, tables, graphs, diagrams) in the context of science. Successful completion of the course will provide 1 credit for Math and 1 credit for Lab Science toward the HS21+ diploma. Prerequisite: CASAS Math score of 221-235 or successful completion of CAP 040.

MATH APPLICATIONS

CAP 046 10 Credits

110 hours of lecture

For students preparing to transition to MATH& 107. Students will apply their math skills in appropriate contexts. Topics include complex expressions, equations, inequalities, compound inequalities, graphs and equations using point-slope and slope-intercept form, systems of equations using algebraic and graphing methods, exponential, radical and polynomial expressions and equations, quadratic, exponential and polynomial functions, quadratic equations, inverse and exponential functions, parabolic, exponential and logarithmic functions. Successful completion of the course will provid 1 credit for Math toward the HS21+ diploma. Prerequisite: CASAS Math score of 236 or higher or successful completion of CAP 042.

TRANSITIONAL STUDIES MATH SUPPORT

CAP 049 1 - 3 Credits

33 hours of lecture

Designed to provide additional instruction and support for student success in CAP Math classes. Reviews important concepts and skills introduced during CAP Math classes. Concurrent enrollment in CAP 040, CAP 042 or CAP 046. Prerequisite: Current CASAS Math score.

INTEGRATED ENGLISH AND HEALTH

CAP 061 7 Credits

77 hours of lecture

For students who want to prepare for the GED or the HS21+ diploma. Integrates science, health and English writing skills to improve performance in an adult secondary education ABE Washington State Health and English course. Students will gain a deeper understanding of the human body's systems while improving reading and writing skills. Successful completion of the course will provide 1 credit for Health toward the HS21+ diploma. Prerequisite: CASAS Reading score of 200-220.

INTEGRATED ENGLISH & WA STATE HISTORY/FINE A

CAP 064 7 Credits

77 hours of lecture

For students who want to earn Credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates WA State history and Fine Arts with critical reading and writing skills. Successful completion of the course will provide 1-3 Credits for English, 1 credit for WA State History and 1 credit for Fine Arts toward the HS21+ diploma. Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061.

INTEGRATED ENGLISH AND US HISTORY & GOVERNMENT

CAP 070 7 Credits

77 hours of lecture

For students who want to earn Credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates US history and government with critical reading and writing skills. Successful completion of the course will provide 1-3 Credits for English and 1 credit for US History & Government toward the HS21+ diploma. Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061.

INTEGRATED ENGLISH & SCIENCE/CWP

CAP 074 7 Credits

77 hours of lecture

For students who want to earn Credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates Science and CWP with critical reading and writing skills. Successful completion of the course will provide 1-3 Credits for English, 1 credit for Science and 1 credit for Contemporary World Problems toward the HS21+ diploma. Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061.

TRANSITIONAL STUDIES PREPARATION

CAP 078 2 Credits

22 hours of lecture

For students who want to prepare for the HS21+ diploma. This course is required in the 1st or 2nd quarter of a student's HS21+ pathway and is structured around the SBCTC Transitions Standards checklist. Primary goal is to provide specific program requirements, goal setting and promote student success as they transition. Successful completion of the course will provide 0.5 credit for Electives toward the HS21+ diploma. Prerequisite: CASAS Reading score of & lt;200-255.

CAP SPECIAL TOPICS
CAP 080 1 - 10 Credits
110 hours of lecture

Variable topics in Basic Education Career and Academic Prep. 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. Outcomes are determined by level of placement into the course and are based on the Washington State Basic Education Learning Indicators. Students must attempt a CASAS post test after 45 hours of attendance in this course. Prerequisite: Appropriate placement by ABE, ESL, GED level completion, CASAS testing, or permission of department.

I-BEST SUPPORT CLASS
CAP 091 1 - 5 Credits
55 hours of lecture

Designed to provide additional instruction and support for student success in I-BEST designated classes. Reviews important concepts and vocabulary introduced during I-BEST classes and skills to communicate clearly and accurately using vocabulary and expressions commonly used in the I-BEST academic, work place and job search environment. Offers activities to strengthen basic skills while studying in an I-BEST program. Students must be concurrently enrolled in an I-BEST designated class. Concurrent with designated I-BEST courses. Prerequisite: Admission into an I-BEST program.

Computer Graphics Technology

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 4 Credits
22 hours of lecture 44 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 4 Credits
22 hours of lecture 44 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]

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. [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 HTML Fundamentals. [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]

PROFESSIONAL PRACTICES
CGT 214 4 Credits
22 hours of lecture 44 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 4 Credits
22 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. [GE]

SPECIAL PROJECTS
CGT 290 1 - 3 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit.

Chemistry

SKILLS FOR PRE-HEALTH CHEMISTRY
CHEM 095 3 Credits
33 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 W/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 or 095 and eligibility for MATH 093/095; or eligibility for MATH 111. Formerly CHEM 111. [NS,SE]

INTRO TO ORGANIC/BIOCHEM

CHEM& 131 5 Credits
44 hours of lecture 22 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. [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. 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 recommending score on Clark's general chemistry placement test. [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 Credit
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 Credit
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 math-

ematical 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 and CHEM& 153, 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 Credit
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& 153, or consent of Instructional Unit. [NS, SE]

ORGANIC CHEMISTRY LABORATORY II

CHEM& 252 1 Credit
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] [PNP]

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

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]

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]

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]

PERSUASION SPEAKING
CMST 240 5 Credits
55 hours of lecture

Introduction to the study of persuasion. Examines persuasion from both a theoretical and application perspective. Prerequisite: A grade of "C" or better in CMST& 220. [HA, 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]

ORGANIZATIONAL COMMUNICATIONS
CMST 310 5 Credits
55 hours of lecture

Introduction to the communication dynamics of an organization, including the major theories of organizational communication, identifying and defining primary concepts and applying them to discussions of real-world situations. Students will analyze relationships between structural variables in the organization and informal communication channels, organizational culture, and strategic communication. Topics include public and human relations, conflict resolution, motivation, coaching, leadership, informal communication networks, corporate culture, socialization, globalization, the role of technology, and external communication as they relate to organizations. The theory and research will be applicable to students through case studies of actual organizational problems/issues. [C]

College Preparation

COLLEGE ESSENTIALS: INTRODUCTION TO CLARK
COLL 101 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 competence and communication skills, financial literacy, and an introduction to student resources at the college. [GE, HR] [PNP]

Computer Science

ENGINEERING AND COMPUTER SCIENCE ORIENTATION
CSE 101 1 Credit
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. [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. [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. [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]

DISCRETE STRUCTURES
CSE 215 5 Credits
55 hours of lecture

Discrete structures and analysis techniques for computing by building on students' skills in programming and logic. Topics include: functions, relations and their properties; sets, sequences and tuples; probability, counting (permutations and combinations); propositional logic and logical connectives; introduction to predicate logic and its limitations; formal proof strategies (counterexample, contraposition); contradiction, recursion, computational complexity; trees, graphs and traversal strategies; modeling computation (finite state & turing machines). Prerequisite: A grade of "C" or better in CSE 121 and ENGR 250.

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 and CSE 224, or consent of Instructional Unit. [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 215 and CSE 222, or consent of Instructional Unit. [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 121 or consent of Instructional Unit. [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 Credit
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. [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. [SE]

DISCRETE STRUCTURES
CSE 215 5 Credits
55 hours of lecture

Discrete structures and analysis techniques for computing by building on students' skills in programming and logic. Topics include: functions, relations and their properties; sets, sequences and tuples; probability, counting (permutations and combinations); propositional logic and logical connectives; introduction to predicate logic and its limitations; formal proof strategies (counterexample, contraposition); contradiction, recursion, computational complexity; trees, graphs and traversal strategies; modeling computation (finite state & turing machines). Prerequisite: A grade of "C" or better in CSE 121 and ENGR 250.

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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 and CSE 224, or consent of Instructional Unit. [SE]

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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

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 be-

havior, health and safety issues, and developing a service attitude. [GE]

INTRODUCTION TO THE INTERNET

CTEC 105 3 Credits
33 hours of lecture

Introduction to global networking and the Internet from the user's perspective with an emphasis on the basic skills required to participate as a member of the Internet community. Topics include use of electronic mail, electronic discussion groups, accessing databases and on-line information from around the world, and downloading files from file archives. Overview of the social impact of networking technology, the Internet history, and culture. [GE]

INFORMATION TECHNOLOGY FUNDAMENTALS

CTEC 106 5 Credits
55 hours of lecture

Provides foundational skills utilized in information and computer technology and a functional understanding of information technology-related careers. Topics include hardware and software technologies, configuring and setting up workstations, network fundamentals and computer security. Course is based on CompTIA IT Fundamentals certification. [GE]

COMMAND LINE ESSENTIALS FOR WINDOWS AND UNIX

CTEC 110 3 Credits
33 hours of lecture

Provides skills and experience in command line environments such as DOS, Windows PowerShell and Linux/Unix shells needed for preparation towards careers in computer and information technology related fields. Topics include DOS, PowerShell and Unix file systems, Advanced File Processing and UNIX scripting. Instruction is provided in a lab environment using Windows OS and secure remote UNIX connections. Prerequisite: Eligibility for ENGL 098. [GE]

PROGRAMMING ESSENTIALS

CTEC 112 5 Credits
55 hours of lecture

Course provides a participatory overview of essential foundational information technology and computer programming concepts. Topics include computing as a creative activity, abstraction, principles of computer operations, debugging, algorithmic thinking and problem solving, programming functions and operations, iteration principles, ethics in computing and the limitations of computing. Students will design and code simple programs. Prerequisite: A grade of "C" or better in MATH 030 or consent of the Instructional Unit. [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]

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 include: problem-solving techniques, program design, coding, de-bugging, testing and documentation. Students will use the Python programming language to write simple programs while being exposed to concepts common to all programming. The course serves as an available prerequisite pathway for further studies in programming. Prerequisite: Eligiblity for ENGL& 101 or PTWR 135 and A grade of "C" or better in MATH 095 or PTCS 110. [Q, SE]

HTML FUNDAMENTALS

CTEC 122 4 Credits
44 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 website will be developed in compliance with current web standards, practices, and usability. Topics include: XHTML, HTML5, CSS, CSS#, web server organization and structure, text editors, images, links, lists, forms, tables, and code validation. [SE]

JAVASCRIPT

CTEC 126 5 Credits
55 hours of lecture

Introduction to the fundamentals and concepts of JavaScript including web scripting with jQuery, AJAX, and related libraries. Student will create dynamic websites and code demonstrating for debugging and testing JavaScript based design and code functionality. Prerequisite: A grade of "C" or better in CTEC 112, CTEC 121, or CSE 121 and A grade of "C" or better in CTEC 122. [GE]

PHP WITH SQL I
CTEC 127 5 Credits
55 hours of lecture

This course is an introduction to the server-side programming language PHP and its use in creating dynamic web applications, providing students with a functional knowledge of database design, SQL statements, dynamic web applications, and the methods implemented in PHP for manipulating MySQL databases. Prerequisite: A grade of "C" or better in CTEC 112, CTEC 121 or CSE 121 and A grade of "C" or betterin CTEC 122. [GE]

MICROSOFT MTA WINDOWS OS FUNDAMENTALS
CTEC 130 3 Credits
33 hours of lecture

Fundamental Windows interactions and key skills and issues important in providing support for Windows users. Topics include basic interactions with Windows, system configuration, installing and upgrading systems, managing devices, system maintenance and other support issues. Course is based on the Windows Operating System Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. [GE]

MICROSOFT MTA NETWORKING FUNDAMENTALS
CTEC 131 3 Credits
33 hours of lecture

Foundational concepts and skills associated with computer networking. Topics include basics of local area networking and wide area networks, the OSI Model, wired and wireless networks, Internet Protocol/Transmission Control Protocol (TCP/IP), and network security. Course is based on the Networking Fundamentals Microsoft Technology Associate (MTA) Certification which students will have an opportunity to earn as a part of the course curriculum. [GE]

MICROSOFT MTA SECURITY FUNDAMENTALS
CTEC 133 5 Credits
55 hours of lecture

Introduces concepts and fundamentals of network security. Topics include security layers, operating system security, network security and security software. Course is based on the Security Fundamentals Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. Prerequisite: A grade of "C" or better in CTEC 131 or NTEC 221, or consent of Instructional Unit. [GE]

MICROSOFT MTA DATABASE ADMIN
CTEC 134 5 Credits
55 hours of lecture

Provides a foundational overview of concepts, practices, and operation as associated with designing, developing and administrating a database. Topics include core database concepts, creating database objects, manipulating data, data storage, and administering a database. Students will have an opportunity to earn the Microsoft Database Administration Fundamentals Micro Technology Associate (MTA) certification as a component of the course curriculum. Familiarity with Windows and MS Office highly recommended. [GE]

MICROSOFT MTA SOFTWARE DEVELOPMENT WITH C#
CTEC 135 5 Credits
55 hours of lecture

Fundamental concepts related to developing desktop and web applications with the Microsoft C# programming language including the use of Microsoft SQL relational database management system. Topics covered include: program design, object-oriented and procedual coding, debugging, testing and documentation. Course is based on opportunity to earn as a component of the course curriculum. Prerequisite: A grade of "C" or better in CTEC 112, CTEC 121, or CSE 121 or conset of Instructional Unit. Completion of or concurrent enrollment in CTEC 134 is strongly recommended. [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: Eligibility for ENGL 098. [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]

WEB SERVER TECHNOLOGY
CTEC 145 5 Credits
55 hours of lecture

Foundations of web server technologies with a focus on skills useful for web development. Topics include installation and configuration of Apache, MySQL, and PHP, and best practices in security. Interact with UNIX using

basic commands in command line and GUI environments, administrate and maintain web hosting accounts. Prerequisite: A grade of "C" or better in CTEC 122 and CTEC 127, or consent of the Instructional Unit. [GE]

WORDPRESS I
CTEC 160 5 Credits
55 hours of lecture

An overview of the WordPress platform for individuals seeking to create websites for personal or professional use. Basics on WordPress use, installation, content management, and configuration as well as intermediate and more advanced areas such as WordPress Themes, Plugins, and use of advanced settings. Prior web publishing experience not required. Familiarity with web browsers and email is highly recommended. Prerequisite: A grade of "C" or better in ENGL& 101 or consent of Instructional Unit. [GE]

BUSINESS WEB PRACTICES
CTEC 165 4 Credits
44 hours of lecture

Business Web Practices surveys business standards and professional best practices for professions associated with web content creation, web design, and web development. Topics include distinctions between freelance, contracted and salaried work environments, web production practices in content strategy, project management, workflow and version control, current practices in marketing, web analytics and search engine optimization, and legal and ethical issues. [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'. Cannot receive credit for both CTEC 180 and BTEC 180. [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]

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: Consent of Instructional Unit. [GE]

INTRODUCTION TO MANAGED INFORMATION SYSTEMS
CTEC 205 5 Credits
55 hours of lecture

Overview of the role of management information systems in business by supporting a wide range of organizational functions from routine organizational transactions to managerial strategic decision making. Emphasis is on terminology associated with IT and hands-on labwork utilizing common business and IT applications. Familiarity with computer application software highly recommended. Prerequisite: A grade of "C" or better in ENGL& 101. [GE]

COMPTIA A+ FUNDAMENTALS
CTEC 213 4 Credits
44 hours of lecture

Fundamentals of computer technology, basic networking installation and configuration for PCs and mobile computing devices. Covers outcomes and objectives related to the CompTIA A+ 220-801 exam. [GE] [PNP]

COMPTIA A+ OPERATING SYSTEMS & NETWORKING
CTEC 214 4 Credits
44 hours of lecture

Covers the skills required to install, configure and troubleshoot PC operating systems and networking software for desktop computers and mobile devices. Covers outcomes and objectives related to the CompTIA A+

220-802 exam. NTEC 221 or CTEC 131 recommended. Prerequisite: A grade of "C" or better in CTEC 110 Command Line Essentials. [GE] [PNP]

PHP WITH SQL II
CTEC 227 5 Credits
55 hours of lecture

A continuation of the CTEC 127, PHP I course, extending PHP skills with object-oriented programming, API management, PHP security, AJAX integration, and version control. Current best practices in the commercial web industry will be emphasized. Prerequisite: A grade of "C" or better in CTEC 127, or consent of Instructional Unit. [GE]

API AND ADVANCED INTEGRATION
CTEC 228 5 Credits
55 hours of lecture

Application Programming Interface (API) and Advanced Integration will provide the skills and knowledge to use and create APIs that provide integration between programs and services on the web. Students will create or augment an API as a final course project. Prerequisite: A grade of "C" or better in CTEC 126 and CTEC 127 or consent of Instructional Unit. [GE]

WORDPRESS II
CTEC 260 5 Credits
55 hours of lecture

Overview of intermediate and advanced concepts and fundamentals of the WordPress platform emphasizing its features and capabilities as a development environment. Topics include installation and configuration, problem-solving and debugging WordPress, and development of themes, frameworks and plugins. Additionally, students will research, interact, and make contributions to the WordPress Community while demonstrating industry standards and best practices. Prerequisite: A grade of "C" or better in CTEC 122, CTEC 160, and CTEC 127 or consent of Instructional Unit. [GE]

SELECTED TOPICS
CTEC 280 1 - 6 Credits
66 hours of lecture

Varying topics. May be repeated for credit. [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]

Dental Hygiene

DENTAL HYGIENE COMPETENCIES LAB
DH 013 1 Credit
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.

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] [PNP]

PHARMACOLOGY I
DH 282 1 Credit
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: Consent of Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES I
DH 283 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. Includes prevention and control of oral disease and proper safety and infection control procedures. Prerequisite: Consent of the Dental Hygiene Program. [GE]

ORAL MEDICINE
DH 284 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, pertinent drugs, and introduction in managing dental/medical emergencies. Prerequisite: Consent of the Dental Hygiene Program [GE]

PERIODONTICS I
DH 285 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]

DENTAL ANATOMY
DH 286 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]

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] [PNP]

INTRODUCTION TO DIGITAL MANAGEMENT SYSTEMS
DH 292 1 Credit
22 hours of lab
An introduction to axiUm - the digital management system designed for dental patient records, student clinical assessments, and radiography. Students will learn to navigate the system, enter data pertaining to clinical patient treatment, and track clinical skills assessments. Prerequisite: Consent of the Dental Hygiene Program. [GE]

INTRODUCTION TO DENTAL MATERIALS/ ASSISTING
DH 301 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. Prerequisite: Consent of the Dental Hygiene Program. [GE]

HEAD AND NECK ANATOMY
DH 303 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. Prerequisite: Consent of the Dental Hygiene Program. [GE]

EDUCATIONAL THEORY AND APPLICATION
DH 304 2 Credits
22 hours of lecture
Survey of principles and concepts of teaching and learning and use of motivational techniques as they apply to both group and individual education and cultural differences. Students will develop skills as a dental health educator and dental health resource person. Prerequisite: Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES II
DH 313 5 Credits
17 hours of lecture 77 hours of lab
Emphasis on the principles of instrumentation and patient management. Clinical practice in oral prophylaxis, preventive procedures, and patient management at the introductory level. Prerequisite: Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES III
DH 314 5 Credits
17 hours of lecture 77 hours of lab
Clinical practice at the introductory and developmental levels in patient assessment, care planning, management, and periodontal therapy. 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 IV
DH 321 4 Credits
88 hours of lab
Clinical practice at the introductory and developmental levels in patient assessment, care planning, management, and periodontal therapy. Includes prevention and control of oral disease and proper safety and infection control procedures. Prerequisite: Consent of the Dental Hygiene Program. [GE]

ORAL RADIOLOGY I
DH 323 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 324 1 Credit
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: Consent of the Dental Hygiene Program. [GE]

ORAL RADIOLOGY III
DH 331 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: Consent of the Dental Hygiene Program. [GE]

GENERAL AND ORAL PATHOLOGY
DH 344 3 Credits
33 hours of lecture

Fundamentals of oral pathology including the inflammatory processes, tumor development, metabolic pathways and developmental disturbances. Prerequisite: Consent of the Dental Hygiene Program. [GE]

ETHICS AND THE PROFESSION
DH 353 1 Credit
11 hours of lecture

Basic ethical principles and ethical problem solving methods. Includes 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 judgments when treating clinical patients. Prerequisite: Consent of the Dental Hygiene Program. [GE]

LOCAL ANESTHESIA & PAIN CONTROL
DH 364 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: Consent of the Dental Hygiene Program. [GE]

CARIOLOGY
DH 373 2 Credits
22 hours of lecture

Presentation of cause, progression, and prevention of dental caries with an emphasis on fluoride and other remineralization strategies. Prerequisite: Consent of the Dental Hygiene Program. [GE]

PHARMACOLOGY II
DH 383 1 Credit
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: Consent of the Dental Hygiene Program. [GE]

PHARMACOLOGY III
DH 384 1 Credit
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: Consent of the Dental Hygiene Program. [GE]

DENTAL PUBLIC HEALTH - RESEARCH METHODS I
DH 402 2 Credits
11 hours of lecture 22 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. Basic principles of research and the development of the skills required for evaluation of professional research. Prerequisite: Consent of the Dental Hygiene Program. [GE]

DENTAL PUBLIC HEALTH - RESEARCH METHODS II
DH 403 2 Credits
11 hours of lecture 22 hours of lab

Continuation of Dental Public Health - Research Methods 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. Basic principles of research and the development of the skills required for evaluation of professional research. Prerequisite: Consent of the Dental Hygiene Program. [GE]

DENTAL PUBLIC HEALTH - RESEARCH METHODS III
DH 404 1 Credit
22 hours of lab

Continuation of Dental Public Health - Research Methods II. Implementation and evaluation of oral health programs at a variety of community settings. Basic principles of research and the development of the skills required for evaluation of professional research. Prerequisite: Consent of the Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES V
DH 412 9 Credits
199 hours of lab
Introduction to development level of advanced instrumentation and patient treatment techniques. Prerequisite: Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES VI
DH 413 9 Credits
199 hours of lab
Developmental level of advanced instrumentation and patient treatment techniques. Prerequisite: Consent of the Dental Hygiene Program. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES VII
DH 414 10 Credits
220 hours of lab
Demonstration and integration of advanced skills and knowledge with an emphasis on preparation for the practice of dental hygiene. Prerequisite: Consent of the Dental Hygiene Program [GE]

RESTORATIVE DENTISTRY I
DH 431 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]

RESTORATIVE DENTISTRY II
DH 432 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: Consent of the Dental Hygiene Program. [GE]

RESTORATIVE DENTISTRY III
DH 433 4 Credits
11 hours of lecture 66 hours of lab
Clinical and laboratory practice in expanded duties as allowed by Washington State law. Topics include restorative dentistry and associated procedures, dental analgesia, local anesthetic, current dental material evaluation and product selection for use in clinical practice. Prerequisite: Consent of the Dental Hygiene Program. [GE]

RESTORATIVE DENTISTRY IV
DH 434 3 Credits
11 hours of lecture 44 hours of lab
Mastery of restorative skills to include clinical and lab 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: Consent of the Dental Hygiene Program. [GE]

SPECIAL NEEDS POPULATIONS I
DH 451 1 Credit
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]

SPECIAL NEEDS POPULATIONS II
DH 452 1 Credit
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 453 1 Credit
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]

NITROUS OXIDE SEDATION
DH 471 1 Credit
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] [PNP]

PERIODONTICS II
DH 472 2 Credits
22 hours of lecture
Etiological factors in the periodontal disease process including host response, contributing and risk factors, classifications of periodontal diseases, and HIV and periodontitis. Current methods used to assess and evaluate periodontal disease in a patient will be covered. Prerequisite: Consent of the Dental Hygiene Program. [GE]

PERIODONTICS III
DH 473 2 Credits
22 hours of lecture

Evidence-based periodontal disease treatment modalities including non-surgical procedures, modulation of the host response, antimicrobials, lasers, and reevaluation and maintenance procedures. Prerequisite: Consent of the Dental Hygiene Program. [GE]

CAPSTONE
DH 484 3 Credits
33 hours of lecture

The capstone course is an opportunity for students to demonstrate that they have achieved the learning outcomes established by the Clark College Dental Hygiene program. Designed to assess ethical, cognitive, affective, and psychomotor learning in a learner-centered and learner-directed manner. Students will create a resume and cover letter as well as develop their interview skills. The capstone course requires an e-portfolio, which serves as an instrument of program assessment. Prerequisite: Consent of the Dental Hygiene Program. [GE]

Diesel Technology

CUMMINS ENGINES
DIES 096 3 Credits
33 hours of lecture

Specialized training in Cummins engine theory, troubleshooting, tune-up, 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. Prerequisite: Eligibility for ENGL 098 and MATH 030. [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. Prerequisite: Eligibility for ENGL 098 and MATH 030. [GE] [PNP]

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. Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 111 and 112. [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. Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 111 and 112. [GE] [PNP]

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. Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 113 and 114. [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. Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 113 and 114. [GE] [PNP]

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. Prerequisite: Eligibility for ENGL 098 and MATH 030. [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: Eligibility for ENGL 098 and MATH 030 and successful completion with a "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: Eligibility for ENGL 098 and MATH 030

and successful completion with a "C" or better in DIES 121. [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. Prerequisite: Eligibility for ENGL 098 and MATH 030. [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. Prerequisite: Eligibility for ENGL 098 and MATH 030. [GE] [PNP]

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. Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 221 and 222. [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: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 221 and 222. [GE] [PNP]

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. Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 223 and 224. [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: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 223 and 224. [GE] [PNP]

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] [PNP]

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]

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]

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]

INTRODUCTION TO CINEMA
DRMA 154 5 Credits
55 hours of lecture

An introductory course in film history, production techniques, aesthetics, and the social impact of the American film industry from 1900 to the present. [HA]

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]

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]

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]

INTRO EARLY CHILD ED
ECED& 105 5 Credits
55 hours of lecture

Overview of the foundations of early childhood education. Examine theories defining the field, issues and trends, best practices, and program models. Observe children, professionals, and programs in action. Concurrent enrollment in ECED& 120. Prerequisite: Students must be cleared through the Washington State Department of Early Learning to volunteer with young children. Students must show evidence of a current TB test. [SE]

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]

HEALTH/NUTRITION/SAFETY
ECED& 107 5 Credits
55 hours of lecture

Develop knowledge and skills to ensure good health, nutrition, and safety of children in group care and education programs. Recognize the signs of abuse and neglect, responsibilities for mandated reporting, and available community resources. Students may not receive credit for both ECED& 107 and ECE 103 or FLFN 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]

LITERATURE AND STORYTELLING FOR CHILDREN
ECE 116 2 Credits
22 hours of lecture

Introduction to the value of storytelling and the use of literature as tools in the development of children. Literature and storytelling has the ability to speak to our "souls" and it is the intent of this class to reclaim for some and validate for others the value of literature as a tool with children and for ourselves. Through small and large group discussions as well as diverse experiences, co-learners will have an opportunity to develop an understanding of book selection, delivery styles, bibliotherapy, and community resources for acquiring literature and networking with professionals in the field of Early Childhood Education. [GE]

PRACTICUM-NURTURING REL
ECED& 120 2 Credits
11 hours of lecture 22 hours of lab

Apply theories of best practice in an early learning setting. Focus on developing supportive relationships while keeping children healthy and safe. Students must be cleared through the Washington State Department of Early Learning to volunteer with young children. Students must show evidence of a current TB test. Concurrent enrollment in ECED& 105. [SE]

INFANTS/TODDLERS CARE
ECED& 132 3 Credits
33 hours of lecture

Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices,

nurturing environments for infants and toddlers, and culturally relevant care. [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]

FAMILY CHILD CARE

ECED& 134 3 Credits
33 hours of lecture

Learn the basics of home/family child care program management. Topics include licensing requirements, business management, relationship building, health, safety, and nutrition, guiding behavior and promoting growth and development. [GE]

PARTNERSHIPS WITH FAMILIES IN EARLY CARE & E

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]

ADMIN EARLY LRNG PROG

ECED& 139 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 and administration and operations. [GE]

CURRICULUM DEVELOPMENT

ECED& 160 5 Credits
55 hours of lecture

An investigation of learning theory and its relationship to curriculum development for young children. Students will focus on methods for planning and evaluating developmentally appropriate curriculum to facilitate development in the areas of language, fine/gross motor, social-emotional, cognitive and creative expression based on the interests and cultures of families and children. Prerequisite: ECED& 105, ECED& 120, EDUC& 130, ECE 133 and ECE 132. [GE]

ENVIRONMENTS-YOUNG CHILD

ECED& 170 3 Credits
33 hours of lecture

This course will offer a broad perspective and exploration of planning physical space appropriate to children's cognitive, physical, and socio-emotional development. Students will develop an understanding of the role of environments on children's learning and behavior including schedules, materials, room arrangement, and center-based learning. We will learn to incorporate aspects of diversity and inclusion through the environment. [GE]

LANG/LITERACY DEVELOP

ECED& 180 3 Credits
33 hours of lecture

Teaching strategies for language acquisition and literacy skill development examined at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading. [GE]

OBSERVATION/ASSESSMENT

ECED& 190 3 Credits
33 hours of lecture

Practice collecting and presenting observation data of children, teaching practices and learning centers in an early childhood setting. [GE]

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]

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: ECED& 160, or consent of Instructional Unit. [GE]

LEARNING EXP 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 EXP 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] [PNP]

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]

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]

MANAGERIAL AND GLOBAL ECONOMICS
ECON 405 5 Credits
55 hours of lecture

Reviews basic issues in microeconomics, macroeconomics, and global economics. Topics include allocation of resources, economic systems, economic institutions and incentives, market structures and prices, and productivity. Also included are issues related to the global marketplace, aggregate supply and demand, and governmental policy towards business. [SS]

Education

CHILD DEVELOPMENT
EDUC& 115 5 Credits
55 hours of lecture

Build a functional understanding of the foundation of child development, prenatal to early adolescence. Focus on the physical, social, emotional, and cognitive development of children, reflective of cross cultural and global perspectives. Develop skills in: observing and documenting child growth and development, identifying theory in practice, and critical reflection of assumptions. [SE]

GUIDING BEHAVIOR
EDUC& 130 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]

SCHOOL AGE CARE
EDUC& 136 3 Credits
33 hours of lecture

Develop skills to provide developmentally appropriate and culturally relevant activities and care, specifically, preparing the environment, implementing curriculum, building relationships, guiding academic/social skill development, and community outreach. [GE]

CHILD/FAMILY/COMMUNITY
EDUC& 150 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 culture and the resulting impact on families participating in early childhood programs. Students may not receive credit for both ECE 202 and EDUC& 150. [GE, HR]

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 paraeducators. 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]

Emergency Medical Technician (EMT)

EMERGENCY MEDICAL TECHNICIAN (ACCELERATED)

EMT 103 12 Credits
77 hours of lecture 110 hours of lab

Training in pre-hospital emergency care with clinical education experience. This is an accelerated EMT program that provides for supervised pratice of skills taught in each lesson. As required by the Department of Transportation (DOT), this course is under the supervision of a Medical Program Director and EMT Coordinator. The course meets the requirements of State EMT certification. Course length is approximately 186 clock hours including the four integrated phases of education (lecture, laboratory, clinical and field experience.

English

WRITING FUNDAMENTALS

ENGL 097 5 Credits
55 hours of lecture

Emphasis on writing complete, correct sentences and unified, coherent paragraphs and short essays. Learn to build writing skills through pre-writing, drafting, revising, and editing, and develop analytical habits of mind, reading comprehension strategies, and digital literacy skills. Short essays and selected readings will be assigned. Concurrent enrollment in CAP 087 if score on college reading skills placement test recommends it. Prerequisite: Recommending score on college writing skills placement test.

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 writing 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 writing required. Prerequisite: A grade of "C" or better in ENGL 098 or IELP 091 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]

ETHICS AND POLICY IN HEALTHCARE I
ENGL 112 2 Credits
22 hours of lecture

ENGL 112 explores values, ethics, and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions. Foundational concepts are introduced and discussed in the context of a first year nursing student. Concurrent enrollment in NURS 110, NURS 111, NURS 113, NURS 114, and NURS 115. Prerequisite: Consent of the Nursing Department. [HA]

INTRODUCTION TO CREATIVE WRITING
ENGL 121 3 Credits
33 hours of lecture

In this introduction to creative expression, students will be introduced to and practice at least two of the following genres: fiction, creative nonfiction, and poetry. Students will also practice peer critique and the stages of the creative writing process, including prewriting, drafting, and revision. Completion of ENGL& 101 recommended, but not required. [HB, SE]

FICTION WRITING
ENGL 125 3 Credits
33 hours of lecture

Fundamentals of writing fiction with an emphasis on short fiction. Develops skills for critiquing student fiction. Writing Workshop format. [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]

CREATIVE NONFICTION WRITING
ENGL 127 3 Credits
33 hours of lecture

Exploration of creative nonfiction writing, with an emphasis on writing from personal experience. Development of polished pieces of nonfiction; class discussion of student writing; reading and discussion of examples of the genre; writing exercises to develop key elements of craft; strategies for self-editing and revision. [HB] [PNP]

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] [PNP]

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] [PNP]

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] [PNP]

INTRODUCTION TO 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] [PNP]

WRITING FOR THE WEB
ENGL 160 3 Credits
33 hours of lecture

A survey of best practices for creating reader-centered, purpose-driven web communications: problem solving through the writing process, designing for interactivity, collaborating with other creators and shareholders, measuring and analyzing web metrics, and practicing legal and ethical standards. Prerequisite: A grade of "C" or better in ENGL& 101. [PNP]

POPULAR CULTURE
ENGL 173 3 Credits
33 hours of lecture

Introduction to American Popular Culture using methodology and theory from various disciplines: music, television and cinema studies, sociology, communication studies, literature, anthropology, and history. Central questions will focus on the ways popular culture serves not simply as a reflection of a culture's beliefs and values, but also as a site of conversation between the various subgroups that thrive in America. [HA]

INTRODUCTION TO LGBTQ STUDIES
ENGL 175 5 Credits
55 hours of lecture

An interdisciplinary survey of lesbian, gay, bisexual, and trans issues in the sciences, social science, and humanities with an emphasis on the period from 1900 to the present in the United States. Introduction to the most compelling aspects of modern cultural representation of and discourse on sexual and gender identity. [HA or SS]

NATURE AND THE HUMANITIES
ENGL 176 4 Credits
44 hours of lecture

Interdisciplinary study of historical and current ways of "constructing" and relating to nature in the Humanities. Topics include how cultures value nature, derive ethics and aesthetics from it, and interact with it in the creation of literature, art, architecture, social environments, social commentary, and legislation. Emphasis on 19th and 20th Century American cultures, with background in Asian, European, and Early American perspectives on nature. Can be linked with specific courses in the following departments for an integrated learning project: ART, BIOL, ENGL, ENVS, GEOL, MUSC, and PE. [HA]

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]

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 PTWR 135/ENGL 135. [C, SE] [PNP]

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] [PNP]

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] [PNP]

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]

PACIFIC NORTHWEST LITERATURE
ENGL 271 3 Credits
33 hours of lecture
Focus on writing from and about the Pacific Northwest to explore how the region is defined, imagined, and represented in literature, and the development of regionalism, national and regional histories and other identity-producing media. Eligibility for 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]

ETHICS AND POLICY IN HEALTHCARE II
ENGL 273 3 Credits
33 hours of lecture
ENGL 273 explores values, ethics and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions including nurse practice acts, and state and federal laws. ENGL 273 is taught concurrently with NURS 261. The role of the professional nurse is examined in relation to policy and ethics with analysis of case studies allowing for application of concepts in the health care setting. Concurrent enrollment in NURS 261, NURS 262, NURS 263 and NURS 264. Prerequisite: A grade of "C" or better in NURS 251, NURS 252, NURS 253 and NURS 254.

ADVANCED FICTION WRITING
ENGL 275 3 Credits
33 hours of lecture
Continuation of introductory creative writing courses. Advancement of the fundamentals of writing fiction with an emphasis on short fiction. Further development of skills for critiquing student fiction and participation in the larger literary world through publication, presentation, or other mediums. Writing workshop format. Prerequisite: A grade of "C" or better in ENGL 121, 122, 125, 126, or 127 or consent of Instructional Unit. [HB, SE]

ADVANCED 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: A grade of "C" or better in on of the following: ENGL 121, 122, 123, or 126. [HB, SE]

INTRODUCTION TO LITERARY PUBLICATION
ENGL 277 3 Credits
33 hours of lecture

Introduction to publication strategies and editing of short fiction, poetry, and creative non-fiction. Topics include study of current literary journals to aid in building a vision for Clark's art and literary journal, Phoenix, and work on production tasks related to Phoenix. Intended for Phoenix literary staff, creative writing students, and others interested in the literary publication and editing. Prerequisite: Eligibility for ENGL& 101. [HB] [PNP]

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]

Engineering

HP GRAPHING CALCULATOR
ENGR 080 1 Credit
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 Credit
22 hours of lab

Orientation for students interested in Engineering and Computer Science. Topics include effective planning, communication, teamwork, and exposure to Engineering and Computer Science educational/career opportunities and challenges. Credit not allowed for both ENGR 101 and CSE 101. [SE] [PNP]

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. Cannot receive credit for both ENGR& 104 and PHSC 104. [NS, 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 AUTOCAD
ENGR 140 4 Credits
16 hours of lecture 55 hours of lab

Basic operations of the current version of AutoCAD. Screen features, drawing and editing objects, working with 2D, using both model space and layouts, dimensioning and dimension styles, using blocks, attributes, and xrefs, opening and saving files, and using templates. Recommended for anyone comfortable using a PC. [GE]

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]

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]

INTEGRATED COMPUTATIONAL DESIGN
ENGR 216 3 Credits
11 hours of lecture 44 hours of lab

Use computational SolidWorks Simulation CADD applications in the design and analysis of engineering problems. Also, integrated surface/solid modeling techniques, motion analysis, and use of CADD in documentation of designs and analyses. Prerequisite: Completion of or concurrent enrollment in ENGR 150, and ENGR& 214.

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 33 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 33 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 33 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 33 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 and CSE 121, or consent of Instructional Unit. [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]

Environmental Science

INTRODUCTION TO ENVIRONMENTAL SCIENCE

ENVS& 101 5 Credits
33 hours of lecture 44 hours of lab

Introduction to current topics in environmental science and fundamental principles of ecology. Topics include human population growth, natural resource use, biodiversity, climate change, species interactions, habitat alteration and fragmentation, ecosystem services, carrying capacity and sustainability. Labs will be hands-on investigations of the local environment where students will get an opportunity to collect samples and analyze the environmental quality through the study of soils, biodiversity and water. Many of the labs will be conducted in the field. This course is primarily intended for students majoring or minoring in environmental science or environmental studies. Prerequisite: A grade of "C" or better in MATH 089 or equivalent level as determined by college entrance testing. [NS]

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. [NS]

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. [NS, 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. [NS, SE]

ENVIRONMENTAL SCIENCE: PROBLEM SOLVING
ENVS 221 5 Credits
33 hours of lecture 44 hours of lab

Second of a three-course sequence in Environmental Science. Introduction to applied techniques in environmental science including: environmental sampling design and measurement, environmental assessment and mitigation, and environmental modeling and problem solving. Prerequisite: A grade of "C" or better in ENVS 211. [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. [SS, 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]

ENVIRONMENTAL SCIENCE
ENVS 430 5 Credits
44 hours of lecture 22 hours of lab

Investigate how environmental problems have arisen due to human activities (global warming, air pollution, waste disposal) and their impact on corporate practices, to include the corporate mission, competitive strategy, technology choices, production development decisions, production processes, and corporate responsibilities. Regulations and permits will be reviewed from the perspective of local planning departments. Changes to the environment by using resources at rates that exceed the system's ability to replenish them will also be covered. [NS]

English as a Second Language

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.

INTENSIVE FOUNDATIONS: PROBLEM-SOLVING/TECHNOLOGY
ESL 007 7 Credits
77 hours of lecture

Learn to use basic problem-solving and technology to listen actively, read with understanding, and convey ideas in writing. Upon successful completion of both ESL 007 and ESL 009, students will have gained the skills to transition into Fast Track 1. Concurrent enrollment in ESL 009 ESL Foundations: Spoken/Written Communication. Prerequisite: Current CASAS scores in listening from below 162 to 199.

INTENSIVE FOUNDATIONS: COMMUNICATION
ESL 009 9 Credits
99 hours of lecture

Learn to listen actively, speak so others can understand,

read with understanding, and convey ideas in writing. Upon successful completion of ESL 007 and ESL 009, students will have gained the skills to transition into Fast Track 1. Concurrent enrollment in ESL 007 ESL Foundations: Problem-solving and Technology. Prerequisite: Current CASAS scores in reading from below 180 to 200 and CASAS scores in listening up to 199.

FOUNDATIONS: COMMUNICATION

ESL 013 6 Credits
66 hours of lecture

Learn how and/or improve ability to listen, speak, read, and write basic English with the support of two teachers. Upon successful completion of Foundations (ESL 013): Communications and Foundations (ESL 015): Problem-solving and Technology, students will have gained the skills for higher level Transitional Studies courses. Prerequisite: CASAS scores below 200 in Listening and/or Reading.

FOUNDATIONS: PROBLEM-SOLVING AND TECHNOLOGY

ESL 015 5 Credits
55 hours of lecture

Learn to apply numeracy, and collaborative reading for basic problem-solving and use technology to improve listening, reading and numeracy. Upon successful completion of Mini-ESL Foundations Part 2: Problem-solving and Technology and Mini-ESL Foundations Part 1: Spoken/Written Communication, students will have gained the skills for higher level Transitional Studies courses. Prerequisite: CASAS score below 200 in Listening and/or Reading.

INTENSIVE EXPLORATIONS: STUDY SKILLS

ESL 045 2 Credits
22 hours of lecture

Introduction and development of study skills plus reflection on various strategies of successful college students. Upon successful completion of Intensive Explorations, students will have gained the technology (expecially computer) and study skills as well as the oral and written communication skills to transition into Fast Track one. Concurrent enrollment in ESL 047 and ESL 049. Prerequisite: Current CASAS test scores in all skills. CASAS Listening test score between 200 and 209. CASAS Reading test score between 201 and 210.

EXPLORATIONS: ORAL COMMUNICATION/TECH

ESL 046 6 Credits
66 hours of lecture

Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of speaking and listening communication skills appropriate to ESL L4 (Intermediate ESL), and sufficient to prepare students for Fast Track 1. Upon successful completion of Explorations: Oral Communication/Tech., students will have gained the technology (especially compute) and study skills as well as the oral communication skills to transition into Fast Track 1. Prerequisite: Current CASAS test scores in all skills. CASAS Listening test score between 200 and 209.

INTENSIVE EXPLORATIONS: ORAL COMMUNICATION/TECH

ESL 047 7 Credits
77 hours of lecture

Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of speaking and listening communication skills appropriate to Intermediate ESL, and sufficient to prepare students for Fast Track 1 (both Intensive and Stand-alone courses). Upon successful completion of Intensive Explorations, students will gain the technology (especially computer) and study skills as well as the oral and written communication skills to transition into Fast Track 1 (both Intensive and Stand-alone courses). Concurrent enrollment in ESL 045 and ESL 049. Prerequisite: Current CASAS test scores in all skills. CASAS Listening test score between 200 and 209.

EXPLORATIONS: WRITTEN COMMUNICATION/TECH

ESL 048 5 Credits
55 hours of lecture

Introduction and development of technology (especially computer) skills to support written communication. Development and practice of reading and writing communication skills appropriate to Intermediate ESL and sufficient to prepare students for Fast Track One. Upon successful completion of Explorations, students will have gained the technology (especially computer) and the oral and written communication skills to transition into Fast Track One. Prerequisite: Current CASAS test scores in all skills. CASAS Reading test score between 201 and 210. OR successful completion of Foundations or ESL I-DEA.

INTENSIVE EXPLORATIONS: WRITTEN COMMUNICATION/TECH

ESL 049 7 Credits
77 hours of lecture

Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of reading and written communication skills appropriate to Intermediate ESL, and sufficient to prepare students for Fast Track One. Upon successful completion of Foundations Plus, students will gain the technology (especially computer) and study skills as well

as the oral and written communication skills to transition into Fast Track One. Concurrent enrollment in ESL 045 and ESL 047.

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.

ESL LITERACY SUPPORT
ESL 090 1 - 2 Credits
22 hours of lecture

Learn how and/or improve ability to read with understanding and convey ideas in writing. Upon successful completion of ESL Literacy Support, students will have gained skills to improve performance on ESL reading/writing assessments. Prerequisite: CASAS Reading test score under 210 and teacher recommendation.

ESL MATH FOR TRANSITION
ESL 093 3 Credits
33 hours of lecture

Math such as fractions, decimals, operations, will be contextualized in real-life contexts, so students can transfer the skills outside of the classroom while they are preparing to transition to CAP Math. Prerequisite: Current CASAS test scores in all skills. CASAS Listening score of 200 or higher. CASAS Reading socre of 201 or higher. [PNP]

READING, SPEAKING AND US CITIZENSHIP
ESL 095 3 Credits
33 hours of lecture

Learn reading, writing and oral communication strategies including critical thinking to actively participate in various aspects of Civics including basic knowledge of US history and government, and incorporation of on-line resources for effective US Citizenship interview preparation and engaged citizenship. Prerequisite: Current CASAS scores in all skills. CASAS Listening and Reading scores of 190 or higher.

Family Life - Parent & Child

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 2½ - 6 participate in 2½ hour classes. Contact department before enrolling, 992-2393. Credit varies with amount of parent participation.

PARENT COOPERATIVE PRESCHOOL
FLPC 136 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 2½ - 6 participate in 2½ hour classes. Contact department before enrolling, 992-2393. Credit varies with amount of parent participation.

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 2½ - 6 participate in 2½ hour classes. Contact department before enrolling, 992-2393. Credit varies with amount of parent participation.

EARLY INTERVENTION PARENT/CHILD PARTICIPATION
FLPC 141 1 Credit
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.

EARLY INTERVENTION PARENT/CHILD PARTICIPATION
FLPC 142 1 Credit
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.

EARLY INTERVENTION PARENT/CHILD PARTICIPATION

FLPC 143 1 Credit
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.

EARLY INTERVENTION PARENT/CHILD PARTICIPATION

FLPC 144 1 Credit
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.

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.

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. Survey of the countries and major features of the world as well as geographic aspects of culture, including the past and present social, political and economic factors that are related to human perception, organization and use of the environment. [SE, SS]

WORLD REGIONAL GEOGRAPHY

GEOG& 102 5 Credits
55 hours of lecture

Fundamental geographic concepts and examination of different world regions and the various physical, social, cultural, and political processes that create, shape, and affect them. Survey of several different world regions, such as Sub-Saharan Africa, Europe, the Middle East, Latin American and Southeast Asia, by examination of the environmental, cultural, historical, and economic processes that make each region unique, as well as its connections and commonalities with other world regions. [SE, SS]

HUMAN GEOGRAPHY

GEOG& 200 5 Credits
55 hours of lecture

The course provides a foundation for the understanding of fundamental concepts and current ideas in Human Geography. The purpose of the course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will gain a broad understanding of the development of cultural, social, political and economic spaces at a variety of scales and the interaction of human societies with the biophysical environment. The significance of spatial and temporal scales will be introduced, and a consideration of ethics and values developed. [SE, SS]

PHYSICAL GEOGRAPHY

GEOG 205 5 Credits
55 hours of lecture

Foundation for the understanding of fundamental concepts and current ideas in physical geography. The systematic study of patterns and processes that have shaped the Earth's surface by understanding our natural environment, earth-sun-moon relationships, cartography, weather and climate, landforms, soils, oceans, and water and biotic resources. Survey continents, countries, natural resources as well as major physical features of our current global landscape. [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. [SE, SS] [PNP]

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 88 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. Maxi-vans 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]

Human Development

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]

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]

MOTIVATION AND STUDY SKILLS
HDEV 116 2 Credits
22 hours of lecture

Strategies for developing student behaviors and attitudes consistent with achieving success in college. Topics include campus resources to support student success; building effective study skills; developing skills for academic planning; time management and stress management. Appropriate for any student, particularly those working to improve basic skills and abilities necessary for higher level college courses. Credit not allowed for both HDEV 116 and 117. [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] [PNP]

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. [GE]

BASIC MINDFULNESS SKILLS
HDEV 125 2 Credits
22 hours of lecture

Mindfullness skills practice enhances physical and psychological wellbeing. Students will learn basic theory and application of these techniques for an effective mindfulness practice. [GE] [PNP]

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 Credit
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 Credit
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 Credit
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]

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]

Health Occupations

BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY

HEOC 100 4 Credits
33 hours of lecture 22 hours of lab

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. The course includes a laboratory component that is integral to the course concepts and skills. [GE]

HEALTH CARE DELIVERY & CAREER EXPLORATION

HEOC 104 3 Credits
33 hours of lecture

An introduction to the healthcare delivery system in the United States and the many health professions available as career choices, as well as their academic, licensing, and certification requirements. [GE]

AIDS EDUCATION

HEOC 120 1 Credit
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] [PNP]

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] [PNP]

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]

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 evaluation. 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]

Health Informatics

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. Incor-

porated 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]

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. [GE]

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. [GE]

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. [GE]

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. [GE]

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] [PNP]

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] [PNP]

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 WORLD HISTORY I
HIST 251 5 Credits
55 hours of lecture

A survey course exploring the role of women in world history from pre-historical times up to the pre-Industrial Age. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the development of patriarchy and misogyny; women's contributions to Eastern, Middle Eastern and Judeo/Christian religious experiences; and women's roles in Africa and South America. [SS, SE]

WOMEN IN WORLD HISTORY II
HIST 252 5 Credits
55 hours of lecture

A survey course exploring the role of women in World History from the pre-Industrial Age to modern times. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the role of women in an industrial society and their influence in major movements such as the Scientific Revolution and the Enlightenment; origins of feminism; and the equal rights movement as it applies to voting, property ownership and areas of marriage and divorce. [SS, SE]

AMERICAN DIPLOMATIC HISTORY
HIST 255 5 Credits
55 hours of lecture

The development of America's relationship with other governments and the global community from WWI to the First Gulf War, looking for specific patterns of behavior, such as isolationism, neutral rights, market expansion, brinkmanship and foreign intervention to explain how America's role and image in the world has changed over time. Topics include: World War I, The Good Neighbor Policy, World War II, The Cold War, The Vietnam War, Detente, and The First Gulf War. [SE]

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] [PNP]

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] [PNP]

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]

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] [PNP]

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] [PNP]

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 WORLD HISTORY I
HIST 251 5 Credits
55 hours of lecture

A survey course exploring the role of women in world history from pre-historical times up to the pre-Industrial Age. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the development of patriarchy and misogyny; women's contributions to Eastern, Middle Eastern and Judeo/Christian religious experiences; and women's roles in Africa and South America. [SS, SE]

WOMEN IN WORLD HISTORY II
HIST 252 5 Credits
55 hours of lecture

A survey course exploring the role of women in World History from the pre-Industrial Age to modern times. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the role of women in an industrial society and their influence in major movements such as the Scientific Revolution and the Enlightenment; origins of feminism; and the equal rights movement as it applies to voting, property ownership and areas of marriage and divorce. [SS, SE]

AMERICAN DIPLOMATIC HISTORY
HIST 255 5 Credits
55 hours of lecture

The development of America's relationship with other governments and the global community from WWI to the First Gulf War, looking for specific patterns of behavior, such as isolationism, neutral rights, market expansion,

brinkmanship and foreign intervention to explain how America's role and image in the world has changed over time. Topics include: World War I, The Good Neighbor Policy, World War II, The Cold War, The Vietnam War, Detente, and The First Gulf War. [SE]

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] [PNP]

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] [PNP]

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]

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] [PNP]

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] [PNP]

HAPPINESS AND YOUR HEALTH
HLTH 108 2 Credits
22 hours of lecture

Exploration of the relationship between happiness and your health. Focuses on the dynamics of happiness, including positive emotion, engagement, and meaning; and the potential health benefits of implementing them into daily life. Students will develop personalized behavior change strategies to advance well-being. [HE, SE]

ADULT CPR AND FIRST AID
HLTH 120 1 Credit
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]

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). [GE, SE]

PEDIATRIC FIRST AID & CPR
HLTH 123 1 Credit
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. [GE]

HEALTHCARE PROVIDER CPR AND FIRST AID
HLTH 124 1 Credit
11 hours of lecture

Cardiopulmonary resuscitation and first aid and for health care providers as required by the Washington Occupation and Health Act. Designed specifically for health care providers. Upon successful completion of the course, students will receive Basic Life Support for the Healthcare Provider and First Aid Certifications from the American Heart Association. Students are required to purchase the required text and workbook (available at Clark College Bookstore) and bring to class. Does not meet AA HLTH distribution requirement. [GE] [PNP]

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. [HE]

CANNABIS AND YOUR HEALTH
HLTH 212 2 Credits
22 hours of lecture

Explores the connection between cannabis and health with a focus on comparing marijuana and hemp, examining scholarly peer-reviewed research findings for medicinal and recreational use, discussing local legalization issues and developing behavior change strategies to advance health. [HPE, SE]

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]

Honors

SPECIAL PROJECTS: HONORS
HONS 290 1 - 6 Credits

Opportunity to plan, organize and complete special projects approved by the department. Prerequisite: Consent of the Instructional Unit.

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 the Health and Physical Education general education requirement. [HPE, 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 advanced health. Participating in movement activities is required. Activities may include

mediation, yoga, tai chi and breathing techniques in addition to activities that improve strength and cardiovascular fitness. Fulfills the Health and Physical Education general education requirement. [HPE, SE] [PNP]

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]

Human Services Substance Abuse

INTRO TO ADDICTIVE DRUGS
HSSA& 101 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]

Intensive English Language Program

INTENSIVE MATH REVIEW
IELP 045 8 Credits
88 hours of lecture

This academically rigorous course is designed for students who want to prepare for college-level math classes. Curriculum includes who numbers, fractions, decimals, signed numbers, percent, geometry, standard/metric measurement and basic algebra. Application problems and test taking/study skills will be emphasized. Credit not allowed for both CAP 045 and IELP 045. Concurrent enrollment as international student required. Prerequisite: Compass Math Score of 21-30; or IELP 035, or IELP 099:Basic Math, or ENL 099:Basic Math or permission of department.

ESSENTIAL WRITING
IELP 061 5 Credits
55 hours of lecture

For learners of English language who need to develop/improve writing skills at the beginning to low-intermediate level of academic English. Designed for students who have some prior English study, rather than true beginners. The goal is to develop writing skills for general and academic purposes, with emphasis on sentence and paragraph level writing. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use. Prerequisite: Written assessment score of 0-2 and ESL Compass Grammar score of 1 to 62, or permission of department.

ESSENTIAL ORAL COMMUNICATION
IELP 062 5 Credits
55 hours of lecture

For learners of English language who need to develop/improve oral communication skills at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English Instruction, rather than true beginners. Students will develop skills and strategies for speaking and comprehending spoken English in general, and informal and formal academic contexts including conversations, small group and class discussion. They will also learn how and/or improve ability to listen actively, speak so others can understand and develop skills to improve communication across cultural boundaries. Prerequisite: ESL Compass Listening score of 1 to 66, or consent of department.

ESSENTIAL READING
IELP 063 5 Credits
55 hours of lecture

This course is for learners of English language who need to develop/improve reading skills at the beginning to low-intermediate level of academic English. This course meets the needs of students who have had some prior English study, rather than true beginners. The primary goal of this course is to develop reading ability for general and academic reading, and improve comprehension of a range of simple, single and multi-paragraph texts. This course prepares students for IELP 073. Prerequisite: ESL Compass Reading score of 1-64; or permission of department.

ESSENTIAL INTEGRATED SKILLS
IELP 064 3 Credits
33 hours of lecture

For learners of English language who need to develop/improve all language skills at the beginning to low-intermediate level of academic English. Meets the needs of students who have had some prior English study, rather than true beginners. The primary goal is to develop/improve English skills, while exploring basic content in units and beginning to utilize learning technology at Clark as well as developing basic problem solving skills. Prerequisite: Written assessment score of 0-2 and ESL Compass Grammar score of 1 to 62, or permission of department.

INTERMEDIATE WRITING

IELP 071 5 Credits

55 hours of lecture

For learners of English language who need to improve writing skills at the intermediate level of academic English. Includes review and mastery of skills developed in IELP 061. The goal is to develop writing skills for general and academic purposes, with emphasis on paragraph, short essay, and other short text writing. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use. Credit not allowed for both ENL 081 and IELP 071. Prerequisite: Writen assessment score of 3 and ESL Compass Grammar score of 63-72; grade of "C" or better in IELP 061; successful completion of ESL level 6 reading/writing or permission of department.

INTERMEDIATE ORAL COMMUNICATION

IELP 072 5 Credits

55 hours of lecture

For learners of English language who need to develop/improve oral communication skills at the intermediate level of academic English. Students will develop skills and strategies to carry out some complex medium-length communication tasks in informal and formal academic contexts including conversations, small group, class discussion and short presentations and will learn how and/or improve ability to listen actively, speak so others can understand and develop skills to improve communication across cultural boundaries. Credit not allowed for both ENL 082 and IELP 072. Prerequisite: A grade of "C" or better in IELP 062; Successful completion of ESL level 6 Listening/Speaking; ESL Compass Listening score of 67-74, or consent of department.

INTERMEDIATE READING

IELP 073 5 Credits

55 hours of lecture

For learners of English who need to improve reading skills at the intermediate level of academic English. The primary goal is to develop reading ability for general and academic reading, and improve comprehension of a range of authentic and some modified multi-paragraph texts. Credit not available for both ENL 099A-Reading and IELP 073. Prerequisite: ESL Compass Reading score of 65-74; Grade of "C" or better in IELP 063; Successful completion of ESL level 6 reading/writing; or permission of department.

INTERMEDIATE INTEGRATED SKILLS

IELP 074 3 Credits

33 hours of lecture

For learners of English language who need to improve all language skills at the intermediate level of academic English. The primary goal is to improve English skills, while exploring academic content, utilizing learning technology and developing problem solving skills. Concurrent enrollment in IELP 071, 072, and 073 required for international program students to maintain credit level unless alternatives are approved by International Programs office. Prerequisite: Written assessment score of 3 and ESL Compass Grammar score of 63-72; grade of "C" or better in IELP 064; successful completion of ESL level 6 or permission of department.

ADVANCED WRITING

IELP 081 5 Credits

55 hours of lecture

For non-native speakers of English who need to improve writing skills at the advanced level of academic English. Includes review and mastery of skills developed in IELP 071. The goal is to develop writing skills for academic purposes, with emphasis on complex sentences and mid-length texts such as essays and other types of academic writing. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use. Credit not allowed for both ENL 091 and IELP 081. Prerequisite: Written assessment score of 4 and ESL Compass Grammar score of 73-83; grade of "C" or better in IELP 071 or ENL 081; or permission of department.

ADVANCED ORAL COMMUNICATION

IELP 082 5 Credits

55 hours of lecture

For learners of English language who need to develop/improve oral communication skills at the advanced level of academic English. Students will develop skills and strategies to carry out complex extended communication tasks in informal and formal academic contexts (conversation, group discussion, and simple academic informational or persuasive presentations), improve their ability to listen actively, speak so others can understand and develop skills to improve communication across cultural boundaries. Credit not allowed for both ENL 092 and IELP 082. Prerequisite: A grade of "C" or better in IELP 072 or ENL 082; ESL Compass Listening score of 75-81; or consent of department.

ADVANCED READING

IELP 083 5 Credits

55 hours of lecture

For learners of English language who need to improve reading skills at the advanced level of academic English. The primary is to develop reading ability for general and academic reading and improve comprehension of a range of authentic, basic college-level materials. Credit not allowed for both ENL 099 and IELP 083. Prerequisite: ESL Compass Reading score of 75-85; Grade of "C" or better in IELP 073 or ENL 099 (Reading A); or permission of department.

ADVANCED INTEGRATED SKILLS
IELP 084 3 Credits
33 hours of lecture

For learners of English language who need to improve all language skills at the advanced level of academic English. The primary goal is to develop advanced English skills, while exploring a range of academic content, utilizing learning technology and developing problem solving skills. Prerequisite: Written assessment score of 4 and ESL Compass Grammar score of 73-83; grade of "C" or better in IELP 074; or permission of department.

UPPER ADVANCED WRITING
IELP 091 5 Credits
55 hours of lecture

For learners of English language who need to improve writing skills at the upper advanced level of academic English. Includes review and mastery of skills developed in IELP 081. The goal is to develop writing skills for academic purposes, with emphasis on complex sentences and mid-length texts such as essays and other types of academic writing. Students will improve written fluency as well as accuracy in writing, grammar and vocabulary use in preparation for transfer into college-level courses. Prerequisite: Written assessment score of 5 and ESL Compass Grammar score of 84-93; grade of "C" or better in IELP 081 or ENL 091; or permission of department.

UPPER ADVANCED ORAL COMMUNICATION
IELP 092 5 Credits
55 hours of lecture

For learners of English language who need to develop/improve oral communication skills at the upper advanced level of academic English. Students will develop skills and strategies to carry out complex, extended and unstructured communication tasks in informal and formal academic contexts (academic multi-party conversation, group discussion, and simple academic informational or persuasive presentations). Learn how and/or improve ability to listen actively, speak so others can understand and develop skills to improve communication across cultural boundaries in preparation for transfer into college-level courses. Prerequisite: A grade of "C" or better in IELP 082 or ENL 092; ESL Compass Listening score of 82-91; or consent of department.

UPPER ADVANCED READING
IELP 093 5 Credits
55 hours of lecture

For learners of English language who need to improve reading skills at the upper advanced level of academic English. The primary goal is to develop reading ability for academic reading, and improve comprehension of a range of authentic, multi-paragraph, multi-page college-level materials in preparation for transfer into college-level courses. Prerequisite: ESL Compass Reading score of 86-91; Grade of "C" or better in IELP 083 or ENL 099 (Reading B); or permission of department.

UPPER ADVANCED INTEGRATED SKILLS
IELP 094 3 Credits
33 hours of lecture

For learners of English language who want to improve all language skills at the upper advanced level of academic English. The primary goal is to develop upper advanced English skills, while exploring a wide range of college level content, utilizing learning technology and developing problem solving skills in preparation for transfer into college-level courses. Prerequisite: Written assessment score of 5 and ESL Compass Grammar score of 84-93; or grade of "C" or better in IELP 084, or permission of department.

SELECTED TOPICS
IELP 099 1 - 8 Credits
88 hours of lecture

Various topics, themes, content in intensive English language studies. Because the content varies, this course is repeatable for credit for different topics. [PNP]

COLLEGE ESSENTIALS: INT'L STUDENT INTRO TO
IELP 101 3 Credits
33 hours of lecture

Designed for international students new to Clark College. Focuses on making a successful transition to college and US life. Topics include goal setting, personal management skills, developing an academic plan, developing cultural competence including American cultural behaviors in education settings, communication skills, financial literacy, and an introduction to student resources at the college, as well as serving as an extension of the International student orientation program. Credit not allowed for both IELP 101, COLL 101, and COLL 111. Prerequisite: Admission to Clark College as an international student or consent of International Programs Office.
New students only.

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 Credit
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 Credit
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] [PNP]

JAPANESE READING AND WRITING
JAPN 152 1 Credit
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] [PNP]

JAPANESE READING AND WRITING
JAPN 153 1 Credit
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] [PNP]

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]

JAPANESE IV
JAPN& 221 5 Credits
55 hours of lecture

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [HA, SE]

JAPANESE V
JAPN& 222 5 Credits
55 hours of lecture

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. Prerequisite: JAPN& 221 or equivalent. [HA, SE]

JAPANESE VI
JAPN& 223 5 Credits
55 hours of lecture

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. Prerequisite: JAPN& 222 or equivalent. [HA, SE]

SELECTED TOPICS
JAPN 280 1 - 5 Credits
55 hours of lecture

Course focuses on selected topics in Japanese. 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]

COLLEGE NEWS PRODUCTION
JOUR 110 1 - 3 Credits
66 hours of lab

Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper,

"The Independent." Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critque; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. Prerequisite: A grade of "C" or better in JOUR 101, or equivalent, or consent of the Instructional Unit. [GE, SE]

DIGITAL NEWS
JOUR 111 5 Credits
55 hours of lecture

Writing-intensive instruction and training in digital news, including an introduction to and practice in online news delivery tools, including audio and video reporting and editing, social media, data visualization, blogs and others. Emphasis on ethical issues. Considerable hands-on work requiring high motivation to work independently as well as collaboratively with classmates and instructor. Prerequisite: A grade of "C" or better in JOUR 101 or consent of the Instructional Unit. [HA, GE, SE]

COLLEGE NEWS PRODUCTION
JOUR 120 1 - 3 Credits
66 hours of lab

Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, "The Independent." Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critque; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. Prerequisite: A grade of "C" or better in JOUR 101, and successful completion of JOUR 110 or its equivalent, or consent of the Instructional Unit. [GE, SE]

COLLEGE NEWS PRODUCTION
JOUR 130 1 - 3 Credits
66 hours of lab

Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, "The Independent." Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critque; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. Prerequisite: A grade of "C" or better in JOUR 101, and successful completion of JOUR 120 or its equivalent, or consent of the Instructional Unit. [GE, SE]

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 NEWS PRODUCTION
JOUR 210 1 - 3 Credits
66 hours of lab

Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, "The Independent." Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critque; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. Prerequisite: A grade of "C" or better in JOUR 101, and successful completion of JOUR 130 or its equivalent, or consent of the Instructional Unit. [GE, SE]

COLLEGE NEWS PRODUCTION
JOUR 220 1 - 3 Credits
66 hours of lab

Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, "The Independent." Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critque; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. Prerequisite:

A grade of "C" or better in JOUR 101, and successful completion of JOUR 210 or its equivalent, or consent of the Instructional Unit. [GE, SE]

COLLEGE NEWS PRODUCTION
JOUR 230 1 - 3 Credits
66 hours of lab

Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, "The Independent." Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critque; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. Prerequisite: A grade of "C" or better in JOUR 101, and successful completion of JOUR 220 or its equivalent, or consent of the Instructional Unit. [GE, SE]

SELECTED TOPICS:
JOUR 280 1 - 3 Credits
33 hours of lecture

The course focuses on selected topics in Journalism. 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
JOUR 290 1 - 5 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

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]

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]

ADVANCED PRECISION MEASUREMENT

MACH 241 5 Credits
22 hours of lecture 66 hours of lab

Introducing the concepts and vocabulary of basic measuring systems and tools, basic tolerance, print reading, calibration fundamentals, surface measurements, threads and thread inspection, hole inspection, optical comparator operation and use, CMM operation and use and GD&T basics and inspection techniques. All required modules will be completed on the Tooling U website. Before moving on, the student will complete each module with 80% or higher and a certificate. [GE]

INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING

MACH 242 5 Credits
22 hours of lecture 66 hours of lab

Setup and operation of Haas TL-1 CNC Lathe. Creating and editing Intuitive Programming System conversational programs. Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit. [GE]

INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING

MACH 243 5 Credits
22 hours of lecture 66 hours of lab

Setup and operation of TRAK bed mill. Creating and editing PROTO TRAK conversational programs. Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit. [GE]

TOOLING CONCEPTS

MACH 251 5 Credits
22 hours of lecture 66 hours of lab

Concepts of metal removal, quality systems, and workholding. [GE]

CNC LATHE SETUP AND OPERATION

MACH 252 5 Credits
22 hours of lecture 66 hours of lab

Instruction and practical application for the safe setup, operation, and Interactive Graphics Function programming of HAAS ST-10 CNC lathe. Produce and edit NC programs on the CNC lathe. Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit. [GE]

CNC MILLING SETUP AND OPERATION

MACH 253 5 Credits
22 hours of lecture 66 hours of lab

Setup and operation of the Haas vertical mill. Manually create and edit M and G code numerical control programs for the Haas vertical mill. Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit. [GE]

ADVANCED EDM PROCESSES

MACH 261 5 Credits
22 hours of lecture 66 hours of lab

Instruction and practical application for the safe setup, operation, and Mastercam software programming of the Charmilles Wire Electric Discharge Machine (EDM). Produce and edit Mastercam NC programs for the Charmilles Wire EDM. Cannot receive credit for both MACH 261 and 231. Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit. [GE]

ADVANCED CNC LATHE PROGRAMMING
MACH 262 5 Credits
22 hours of lecture 66 hours of lab

Instruction and practical application for the safe setup, operation, and Mastercam software programming of Okuma CNC lathe. Produce and edit Mastercam NC programs for the Okuma CNC lathe. Cannot receive credit for both MACH 262 and 232. Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit. [GE]

ADVANCED MILLING 3D PROGRAMMING AND MACHINING
MACH 263 5 Credits
22 hours of lecture 66 hours of lab

Use 2D and 3D geometry within cam software (Mastercam) to produce CNC programs for vertical mills. Cannot receive credit for both MACH 263 and 233. Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit. [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]

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 CAP 045 or DVED 023 or recommending score on placement test.

ALGEBRA I
MATH 089 5 Credits
55 hours of lecture

Numeric and algebraic expressions, linear equations and inequalities, in one variable, the coordinate plane, lines, systems of linear equations and inequalities in two variables, introduction to functions. 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, in one variable, the coordinate plane, lines, systems of linear equations and inequalities in two variables, functions, 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. Integer exponents, polynomials, factoring, rational expressions, evaluating and graphing functions. 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.

INTERMEDIATE ALGEBRA IN SOCIETY
MATH 097 5 Credits
55 hours of lecture

Polynomials, dimensional analysis, proportions, functions, radicals, quadratic equations and inequalities, exponential and logarithmic funtions, and an introduction to statistics, in preparation for MATH& 107. This course may only be used as a prerequisite for MATH& 107. Prerequisite: A grade of "C" or better in MATH 089 or MATH 090 or recommending score for MATH 095 on placement test.

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

A study of a variety of mathematical topics including mathematical models, finance, statistics, and probability. Additional topics may include number theory, geometry, voting theory, networks, apportionment and other topics. For students who do not plan to take additional mathematics. Prerequisite: A grade of "C" or better in MATH 093 or 095 or 097, 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]

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]

INTRODUCTION TO STATISTICS
MATH& 146 5 Credits
55 hours of lecture

Descriptive statistical methods, probability, binomial and normal probability distributions, estimation of parameters, tests of hypotheses, and regression analysis are included among other statistical topics with applications to fields of nursing, science, engineering, and social science. Prerequisite: A grade of "C" or better in MATH 093 or 095, or recommending score on placement test. [Q]

STATISTICS II
MATH 147 3 Credits
33 hours of lecture

Inference techniques involving two or more populations; regression inference, analysis of variance (ANOVA), and Chi-square tests are included among other statistical topics with applications to fields of nursing, science, engineering, and social science. Prerequisite: A grade of "C" or better in MATH& 146. [Q]

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 intended primarily for students of mathematics, the physical sciences, or engineering. Covers the foundations of calculus of a single variable. Topics include limits, differentiation, applications of differentiation to properties of functions and 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 MATH 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. Topics include techniques of integration, applications of integration, conics, parametric equations, polar coordinates, and polar equations. Credit not allowed for both MATH 211 and MATH& 152. 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. Topics include sequences and series, three-dimensional vectors and lines, planes, cylindrical and spherical coordinates; and vector valued functions and their derivatives, integrals, and applications. 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]

INFERENTIAL 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. Covers the calculus of functions of several variables. Topics include limits; partial derivatives, iterated integrals, and their applications, 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]

MANAGERIAL STATISTICS
MATH 320 5 Credits
55 hours of lecture

Lays the foundation for statistical thinking and imparts many valuable skills that are widely used in marketing, finance, economics, supply chain management, and financial accounting. Also expands spreadsheet skills and advances the type of computing expertise required for analyzing large amounts of complex data. This is a hands-on course, with an emphasis on examining and interpreting data, descriptive and inferential statistical, and using various statistical tools. Prerequisite: A grade of "C" or better in MATH& 146. [CP]

Meteorology

ATMOSPHERE AND THE ENVIRONMENT
METR 101 5 Credits
44 hours of lecture 22 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]

Management

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] [PNP]

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]

Mechatronics

INDUSTRIAL SAFETY
MTX 100 1 Credit
11 hours of lecture

Introduction to the general safety practices and information needed while working in a manufacturing setting. Material will include federal safety regulations, safe operations and practices in the technical crafts of the industry. Concurrent enrollment in MTX 101 or consent of Instructional Unit. Prerequisite: A grade of "C" or bet-

ter in MATH 030 or recommending score on placement test. [GE]

DC FUNDAMENTALS

MTX 101 3 Credits
11 hours of lecture 44 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. Concurrent enrollment in MTX 100 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in ENGL 098 or equivalent placement score, MATH 089 or higher. [GE]

AC FUNDAMENTALS

MTX 102 4 Credits
22 hours of lecture 44 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 troubleshooting. Prerequisite: Successful completion of MTX 100, MTX 101, and MATH 089. [GE]

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. Concurrent enrollment in MTX 100 or consent of Instructional Unit. [GE]

BASIC HYDRAULICS

MTX 105 3 Credits
22 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. Concurrent enrollment in MTX 100 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. Concurrent enrollment in MTX 102. Prerequisite: Successful completion of MTX 100 and MTX 101 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. Concurrent enrollment in MTX 102. Prerequisite: Successful completion of MTX 100 and MTX 101 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 raceways, conduit bending, rigid conduit, flexible conduit, conductors, disconnects, overcurrent protection, conduit sizing, and wire pulling techniques. Concurrent enrollment in MTX 102. Prerequisite: Successful completion of MTX 100 and MTX 101 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: Successful completion of MTX 102 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: Successful completion of MTX 102 or consent of Instructional Unit. [GE]

SEMICONDUCTORS I

MTX 121 3 Credits
11 hours of lecture 44 hours of lab

Fundamentals and applications of diodes, transistors and special-purpose semiconductor devices. Includes hands-on experience in semiconductor circuit construction, measurement and troubleshooting. Prerequisite: A grade of "C" or better in MTX 101 and MTX 102 or consent of Instructional Unit. [GE]

PICK AND PLACE ROBOT

MTX 123 3 Credits
11 hours of lecture 44 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: Successful completion of MTX 102 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: Successful completion of MTX 102 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. Concurrent enrollment in MTX 102. Prerequisite: Successful completion of MTX 100 and MTX 101 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: Successful completion of MTX 102 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: Successful completion of MTX 102 or consent of Instructional Unit. [GE]

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: Successful completion of MTX 102 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: Successful completion of MTX 102 with A grade of "C" or better 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: Successful completion of MTX 102 with A grade of "C" or better 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: Successful completion of MTX 102 with A grade of "C" or better or consent of Instructional Unit. [GE]

MECHATRONICS 2
MTX 216 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: Successful completion of MTX 102 with A grade of "C" or better 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: Successful completion of MTX 102 with A grade of "C" or better 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: Successful completion of MTX 102 with A grade of "C" or better 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 MTX 101, 102, and 121; or concurrent enrollment in MTX 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: Successful completion of MTX 102 with A grade of "C" or better 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 PNEUMATICS AND VACUUM
MTX 260 3 Credits
22 hours of lecture 22 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 troubleshooting, 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: Successful completion of MTX 102 with A grade of "C" or better 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 MTX 101, 102, 121; or concurrent enrollment in MTX 101, 102, and 121; or 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]

APPLIED INSTRUMENT: FLUTE
MUSCA101 1 Credit
11 hours of lecture

Private flute lessons. Prerequisite: Written consent of Instructional Unit required. [HA, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA102 1 Credit
11 hours of lecture

Private violin lessons. Prerequisite: Written consent of Instructional Unit. [HB, SE]

APPLIED INSTRUMENT: CELLO
MUSCA103 1 Credit
11 hours of lecture

Private cello lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA104 1 Credit
11 hours of lecture

Private viola lessons. Prerequisite: Written consent of Instructional Unit required. [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]

APPLIED INSTRUMENT: TRUMPET
MUSCA105 1 Credit
11 hours of lecture

Private trumpet lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA106 1 Credit
11 hours of lecture

Private guitar lessons. Prerequisite: Written consent of Instructional Unit required. [HB, 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]

APPLIED INSTRUMENT: CLARINET
MUSCA107 1 Credit
11 hours of lecture

Private clarinet lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASS
MUSCA108 1 Credit
11 hours of lecture

Private bass lessons. Prerequiste: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA109 1 Credit
11 hours of lecture

Private horn lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASSOON
MUSCA110 1 Credit
11 hours of lecture
Private bassoon lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

BEGINNING GUITAR CLASS
MUSC 110 2 Credits
22 hours of lecture
Beginning-level study of the guitar. [HB, SE]

APPLIED INSTRUMENT: TROMBONE
MUSCA111 1 Credit
11 hours of lecture
Private trombone lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: SAX
MUSCA112 1 Credit
11 hours of lecture
Private sax lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: PERCUSSION
MUSCA113 1 Credit
11 hours of lecture
Private percussion lessons. Prerequisite: Written consent of Instruction Unit required. [HB, SE]

APPLIED INSTRUMENT: OBOE
MUSCA114 1 Credit
11 hours of lecture
Private oboe lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA115 1 Credit
11 hours of lecture
Private euphonium lessons. Prerequisite: Written consent of Instructional Unit required. [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]

APPLIED INSTRUMENT: TUBA
MUSCA116 1 Credit
11 hours of lecture
Private tuba lessons. Prerequisite: Written consent of Instructional Unit 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 intervallic 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 MUSC& 121. Learning to write what is heard in melodic and intervallic ways. Sight-singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight-singing and drill. Prerequisite: MUSC& 121 or consent of Instructional Unit. [HB, SE]

EAR TRAINING 3
MUSC& 123 2 Credits
22 hours of lecture
Continuation of MUSC& 122. Learning to write what is heard in melodic and intervallic ways. Sight-singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight-singing and drill. Prerequisite: MUSC& 122 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]

APPLIED INSTRUMENT: FLUTE
MUSCA131 1 Credit
11 hours of lecture

Private flute lessons. Continuation of MUSCA 101. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA132 1 Credit
11 hours of lecture

Private violin lessons. Continuation of MUSCA 102. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: CELLO
MUSCA133 1 Credit
11 hours of lecture

Private cello lessons. Continuation of MUSCA 103. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA134 1 Credit
11 hours of lecture

Private viola lessons. Continuation of MUSCA 104. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA135 1 Credit
11 hours of lecture

Private trumpet lessons. Continuation of MUSCA 105. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

JAZZ APPRECIATION
MUSC 135 3 Credits
33 hours of lecture

Jazz Appreciation is intended to provide students with relevant and compelling facts about jazz that illustrate its colorful history, its mixture of ethnic diversity, and the impact the music has had on American popular culture. The class utilizes multimedia presentations and music examples to guide students through an interactive process of learning how to listen to jazz, a chronology of significant jazz periods, the societal events that impact each period, and the biographies and significance of key musicians. [HA, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA136 1 Credit
11 hours of lecture

Private guitar lessons. Continuation of MUSCA 106. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: CLARINET
MUSCA137 1 Credit
11 hours of lecture

Private clarinet lessons. Continuation of MUSCA 107. Prerequisite: Written consent of Instructional Unit required. [HB, 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] [PNP]

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] [PNP]

APPLIED INSTRUMENT: BASS
MUSCA138 1 Credit
11 hours of lecture

Private bass lessons. Continuation of MUSCA 108. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA139 1 Credit
11 hours of lecture
Private horn lessons. Continuation of MUSCA 109. Prerequisite: Written consent of Instructional Unit required. [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] [PNP]

APPLIED INSTRUMENT: BASSOON
MUSCA140 1 Credit
11 hours of lecture
Private bassoon lessons. Continuation of MUSCA 110. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TROMBONE
MUSCA141 1 Credit
11 hours of lecture
Private trombone lessons. Continuation of MUSCA 111. Prerequisite: Written consent of Instructional Unit required. [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 MUSC& 121 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]

APPLIED INSTRUMENT: SAX
MUSCA142 1 Credit
11 hours of lecture
Private sax lessons. Continuation of MUSCA 112. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: PERCUSSION
MUSCA143 1 Credit
11 hours of lecture
Private percussion lessons. Continuation of MUSCA 113. Prerequisite: Written consent of Instructional Unit required. [HB, 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]

APPLIED INSTRUMENT: OBOE
MUSCA144 1 Credit
11 hours of lecture
Private oboe lessons. Continuation of MUSCA 114. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA145 1 Credit
11 hours of lecture
Private euphonium lessons. Continuation of MUSCA 115. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TUBA
MUSCA146 1 Credit
11 hours of lecture
Private tuba lessons. Continuation of MUSCA 116. Prerequisite: Written consent of Instructional Unit required. [HB, 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] [PNP]

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] [PNP]

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] [PNP]

APPLIED VOICE
MUSC 170 1 Credit
11 hours of lecture
Private voice lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE
MUSC 171 1 Credit
11 hours of lecture
Private voice lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: FLUTE
MUSCA171 1 Credit
11 hours of lecture
Private flute lessons. Continuation of MUSCA 131. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA172 1 Credit
11 hours of lecture
Private violin lessons. Continuation of MUSCA 132. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE
MUSC 172 1 Credit
11 hours of lecture
Private voice lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO
MUSC 173 1 Credit
11 hours of lecture
Private piano lessons. For students with some previous keyboard experience. Prerequisite: MUSC 201 and written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: CELLO
MUSCA173 1 Credit
11 hours of lecture
Private cello lessons. Continuation of MUSCA 133. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA174 1 Credit
11 hours of lecture
Private viola lessons. Continuation of MUSCA 134. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO
MUSC 174 1 Credit
11 hours of lecture
Private piano lessons. For students with some previous keyboard experience. Prerequisite: MUSC 201 and written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO
MUSC 175 1 Credit
11 hours of lecture
Private piano lessons. For students with some previous keyboard experience. Prerequisite: MUSC 201 and written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA175 1 Credit
11 hours of lecture
Private trumpet lessons. Contination of MUSCA 135. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA176 1 Credit
11 hours of lecture
Private guitar lessons. Continuation of MUSCA 136. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: CLARINET
MUSCA177 1 Credit
11 hours of lecture
Private clarinet lessons. Continuation of MUSCA 137. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASS
MUSCA178 1 Credit
11 hours of lecture
Private bass lessons. Continuation of MUSCA 138. Pre-

requisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA179 1 Credit
11 hours of lecture

Private horn lessons. Continuation of MUSCA 139. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASSOON
MUSCA180 1 Credit
11 hours of lecture

Private bassoon lessons. Continuation of MUSCA 140. 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]

APPLIED INSTRUMENT: TROMBONE
MUSCA181 1 Credit
11 hours of lecture

Private trombone lessons. Continuation of MUSCA 141. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: SAX
MUSCA182 1 Credit
11 hours of lecture

Private sax lessons. Continuation of MUSCA 142. Prerequisite: Written consent of Instructional Unit 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]

APPLIED INSTRUMENT: PERCUSSION
MUSCA183 1 Credit
11 hours of lecture

Private percussion lessons. Continuation of MUSCA 143. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: OBOE
MUSCA184 1 Credit
11 hours of lecture

Private oboe lessons. Continuation of MUSCA 144. Prerequisite: Written consent of Instructional Unit required. [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]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA185 1 Credit
11 hours of lecture

Private euphonium lessons. Continuation of MUSCA 145. Prerequisite: Written consent of Instructional Unit required. [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]

APPLIED INSTRUMENT: TUBA
MUSCA186 1 Credit
11 hours of lecture

Private tuba lessons. Continuation of MUSCA 146. Prerequisite: Written consent of Instructional Unit required. [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: MUSC 101 or consent of Instructional Unit. [HB, SE]

APPLIED INSTRUMENT: FLUTE
MUSCA201 1 Credit
11 hours of lecture

Private flute lessons. Continuation of MUSCA 171. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA202 1 Credit
11 hours of lecture

Private violin lessons. Continuation of MUSCA 172. Prerequisite: Written consent of Instructional Unit required. [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]

APPLIED INSTRUMENT: CELLO
MUSCA203 1 Credit
11 hours of lecture

Private cello lessons. Continuation of MUSCA 173. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA204 1 Credit
11 hours of lecture

Private viola lessons. Continuation of MUSCA 174. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA205 1 Credit
11 hours of lecture
Private trumpet lessons. Contination of MUSCA 175. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA206 1 Credit
11 hours of lecture
Private guitar lessons. Continuation of MUSCA 176. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: CLARINET
MUSCA207 1 Credit
11 hours of lecture
Private clarinet lessons. Continuation of MUSCA 177. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASS
MUSCA208 1 Credit
11 hours of lecture
Private bass lessons. Continuation of MUSCA 178. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA209 1 Credit
11 hours of lecture
Private horn lessons. Continuation of MUSCA 179. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASSOON
MUSCA210 1 Credit
11 hours of lecture
Private bassoon lessons. Continuation of MUSCA 180. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

INTERMEDIATE GUITAR CLASS
MUSC 210 2 Credits
22 hours of lecture
Intermediate-level study of the guitar. Prerequisite: MUSC 110 or consent of Instructional Unit. [HB, SE]

APPLIED INSTRUMENT: TROMBONE
MUSCA211 1 Credit
11 hours of lecture
Private trombone lessons. Continuation of MUSCA 181. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: SAX
MUSCA212 1 Credit
11 hours of lecture
Private sax lessons. Continuation of MUSCA 182. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: PERCUSSION
MUSCA213 1 Credit
11 hours of lecture
Private percussion lessons. Continuation of MUSCA 183. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: OBOE
MUSCA214 1 Credit
11 hours of lecture
Private oboe lessons. Continuation of MUSCA 184. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA215 1 Credit
11 hours of lecture
Private euphonium lessons. Continuation of MUSCA 185. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TUBA
MUSCA216 1 Credit
11 hours of lecture
Private tuba lessons. Continuation of MUSCA 186. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

EAR TRAINING 4
MUSC& 221 2 Credits
22 hours of lecture
Continuation of MUSC& 123. Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. Prerequisite: MUSC& 123. [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, and study of two part inventions and fugue. Concurrent enrollment in MUSC& 221 required. Prerequisite: MUSC& 143 or consent of division. [HA, SE]

APPLIED INSTRUMENT: FLUTE
MUSCA231 1 Credit
11 hours of lecture
Private flute lessons. Continuation of MUSCA 201. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA232 1 Credit
11 hours of lecture
Private violin lessons. Continuation of MUSCA 202. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

MUSIC THEORY V
MUSC& 232 3 Credits
33 hours of lecture
Study of altered dominants, chromatic mediants, variation form, sonota form, and rondo form. Concurrent enrollment in MUSC& 222 required. Prerequisite: MUSC& 231 or consent of Instructional Unit. [HA, SE]

MUSIC THEORY VI
MUSC& 233 3 Credits
33 hours of lecture
Extensions of harmonic language and compositional style of the 20th/21st century, including atonal forms. Concurrent enrollment in MUSC& 223 required. Prerequisite: MUSC& 232 or consent of Instructional Unit. [HA, SE]

APPLIED INSTRUMENT: CELLO
MUSCA233 1 Credit
11 hours of lecture
Private cello lessons. Continuation of MUSCA 203. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA234 1 Credit
11 hours of lecture
Private viola lessons. Continuation of MUSCA 204. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA235 1 Credit
11 hours of lecture
Private trumpet lessons. Continuation of MUSCA 205. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA236 1 Credit
11 hours of lecture
Private guitar lessons. Continuation of MUSCA 206. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: CLARINET
MUSCA237 1 Credit
11 hours of lecture
Private clarinet lessons. Continuation of MUSCA 207. Prerequisite: Written consent of Instructional Unit required. [HB, 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] [PNP]

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] [PNP]

APPLIED INSTRUMENT: BASS
MUSCA238 1 Credit
11 hours of lecture
Private clarinet lessons. Continuation of MUSCA 208. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA239 1 Credit
11 hours of lecture
Private horn lessons. Continuation of MUSCA 209. Pre-

requisite: Written consent of Instructional Unit required. [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] [PNP]

APPLIED INSTRUMENT: BASSOON
MUSCA240 1 Credit
11 hours of lecture

Private bassoon lessons. Continuation of MUSCA 210. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TROMBONE
MUSCA241 1 Credit
11 hours of lecture

Private trombone lessons. Continuation of MUSCA 211. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: SAX
MUSCA242 1 Credit
11 hours of lecture

Private sax lessons. Continuation of MUSCA 212. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: PERCUSSION
MUSCA243 1 Credit
11 hours of lecture

Private percussion lessons. Continuation of MUSCA 213. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: OBOE
MUSCA244 1 Credit
11 hours of lecture

Private oboe lessons. Continuation of MUSCA 214. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA245 1 Credit
11 hours of lecture

Private euphonium lessons. Continuation of MUSCA 215. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TUBA
MUSCA246 1 Credit
11 hours of lecture

Private tuba lessons. Continuation of MUSCA 216. Prerequisite: Written consent of Instructional Unit required. [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] [PNP]

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] [PNP]

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] [PNP]

APPLIED VOICE
MUSC 270 1 Credit
11 hours of lecture

Private voice lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE
MUSC 271 1 Credit
11 hours of lecture

Private voice lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: FLUTE
MUSCA271 1 Credit
11 hours of lecture
Private flute lessons. Continuation of MUSCA 231. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA272 1 Credit
11 hours of lecture
Private violin lessons. Continuation of MUSCA 232. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED VOICE
MUSC 272 1 Credit
11 hours of lecture
Private voice lessons. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO
MUSC 273 1 Credit
11 hours of lecture
Private piano lessons. For students with some previous keyboard experience. Prerequisite: MUSC 201 and consent of Instructional Unit. [HB, SE]

APPLIED INSTRUMENT: CELLO
MUSCA273 1 Credit
11 hours of lecture
Private cello lessons. Continuation of MUSCA 233. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA274 1 Credit
11 hours of lecture
Private viola lessons. Continuation of MUSCA 234. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED PIANO
MUSC 274 1 Credit
11 hours of lecture
Private piano lessons. For students with some previous keyboard experience. Prerequisite: MUSC 201 and consent of Instructional Unit. [HB, SE]

APPLIED PIANO
MUSC 275 1 Credit
11 hours of lecture
Private piano lessons. For students with some previous keyboard experience. Prerequisite: MUSC 201 and consent of Instructional Unit. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA275 1 Credit
11 hours of lecture
Private trumpet lessons. Continuation of MUSCA 235. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA276 1 Credit
11 hours of lecture
Private guitar lessons. Continuation of MUSCA 236. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: CLARINET
MUSCA277 1 Credit
11 hours of lecture
Private clarinet lessons. Continuation of MUSCA 237. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASS
MUSCA278 1 Credit
11 hours of lecture
Private clarinet lessons. Continuation of MUSCA 238. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA279 1 Credit
11 hours of lecture
Private horn lessons. Continuation of MUSCA 239. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: BASSOON
MUSCA280 1 Credit
11 hours of lecture
Private bassoon lessons. Continuation of MUSCA 240. 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]

APPLIED INSTRUMENT: TROMBONE
MUSCA281 1 Credit
11 hours of lecture

Private trombone lessons. Continuation of MUSCA 241. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: SAX
MUSCA282 1 Credit
11 hours of lecture

Private sax lessons. Continuation of MUSCA 242. Prerequisite: Written consent of Instructional Unit 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]

APPLIED INSTRUMENT: PERCUSSION
MUSCA283 1 Credit
11 hours of lecture

Private percussion lessons. Continuation of MUSCA 243. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: OBOE
MUSCA284 1 Credit
11 hours of lecture

Private oboe lessons. Continuation of MUSCA 244. Prerequisite: Written consent of Instructional Unit required. [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]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA285 1 Credit
11 hours of lecture

Private euphonium lessons. Continuation of MUSCA 245. Prerequisite: Written consent of Instructional Unit required. [HB, SE]

APPLIED INSTRUMENT: TUBA
MUSCA286 1 Credit
11 hours of lecture

Private tuba lessons. Continuation of MUSCA 246. Prerequisite: Written consent of Instructional Unit required. [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

IP SUBNETTING

NTEC 103 2 Credits
11 hours of lecture 22 hours of lab

Covers the Internet Protocol (IP) numbering systems IPv4 and IPv6. Includes the following concepts: calculation and converting numbers between DECimal, BINary, and HEXadecimal number systems; understanding the meaning of IP numbers, the purpose/role of the various parts of the number, types/classes of numbers; understanding how to subnet these number ranges using both traditional and VLSM approaches; create supernets, summary routes, and hierachical addressing schemes. No prior computer or network knowledge or experience is required. Prerequisite: MATH 030 eligibility, or consent of Instructional Unit. [GE]

INFORMATION SECURITY FUNDAMENTALS

NTEC 125 3 Credits
22 hours of lecture 22 hours of lab

Builds an understanding of network security topics including how hacker attacks are carried out and how to select the right security solutions for each type of risk. Students learn to create clear and enforceable security policies and to keep them up to date; to establish reliable processes for responding to security advisories; to use encryption effectively and recognize its limitations; to secure networks with firewalls, routers, and other devices; and to prevent attacks aimed at wireless networks. Prerequisite: A grade of "C" or better in NTEC 103, or consent of Instructional Unit.

WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS

NTEC 132 3 Credits
22 hours of lecture 22 hours of lab

Help students prepare for the Microsoft Technology Associate (MTA) Exam 98-365 by building an understanding of server installation, server roles, active directory, storage, server performance management, and server maintenance. Prerequisite: A grade of "C" or better in either NTEC 103 or consent of Instructional Unit. [GE]

CLOUD COMPUTING FUNDAMENTALS

NTEC 142 3 Credits
22 hours of lecture 22 hours of lab

Helps students prepare for the CompTIA Cloud Essentials certification by building an understanding of the following Cloud Computing topics: technical understanding of the foundations of Cloud Computing as compared to traditional IT; integrating Cloud Computing into IT infrastructure; creating economic value by implementing Cloud innovations; and integrating Cloud Computing into an organization's existing compliance, risk and regulatory framework. Prerequisite: A grade of "C" or better in NTEC 103, or consent of Instructional Unit. [GE]

COOPERATIVE WORK EXPERIENCE

NTEC 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] [PNP]

INTRODUCTION TO LINUX SERVERS

NTEC 220 6 Credits
44 hours of lecture 44 hours of lab

Knowledge and skills for using 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 NTEC 103, or consent of Instructional Unit. [GE]

CISCO CCNA 1:INTRODUCTION TO NETWORKS

NTEC 221 6 Credits
44 hours of lecture 44 hours of lab

Introduction to the architecture, structure, functions, components, and models of the Internet, and other computer networks. Covers the principles and structure of IP addressing. The fundamentals of Ethernet concepts, media, and operations are introduced to provide foundation for the basics of network administration. Students will learn to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Part one of a two-course sequence that helps prepare students for the CCENT (Cisco Certified Entry Networking Technician) industry certification, and part one of a four-course sequence that helps prepare students for the CCNA Routing & Switching industry certification. Prerequisite: Completion of NTEC 103 with A grade of "C" or better, or concurrent enrollment in NTEC 103, or consent of Instructional Unit. [GE]

CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS

NTEC 222 6 Credits
44 hours of lecture 44 hours of lab

Learn the architecture, components, and operations of routers and switches in a small network, how to configure a router and a switch for basic functionality; troubleshoot routers and switches; resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-Vlan routing in both IPv4 and IPv6 networks. Part two of a two-course sequence that helps prepare students for the CCENT (Cisco Certified Entry Networking Technician) industry certification, and part two of a four-course sequence that helps prepare students for the CCNA Routing & Switching industry certification. Prerequisite: A grade of "C" or better in NTEC 221, or consent of Instructional Unit. [GE]

CISCO CCNA 3: SCALING NETWORKS

NTEC 223 6 Credits
44 hours of lecture 44 hours of lab

Describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn the following: how to configure routers and switches for advanced functionality; to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network. This course is part-three of a four-course sequence that helps prepare students for the CCNA Routing & Switching industry certification. Prerequisite: A grade of "C" or better in NTEC 222, or consent of Instructional Unit. [GE]

CISCO CCNA 4: CONNECTING NETWORKS

NTEC 224 6 Credits
44 hours of lecture 44 hours of lab

Discusses the WAN technologies and network services required by converged applications in a complex network. Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students team the following: how to configure and troubleshoot network devices, resolve common issues with data link protocols; develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network. This course is part-four of a four-course sequence that helps prepare students for the CCNA Routing & Switching industry certification. Prerequisite: A grade of "C" or better in NTEC 222, or consent of Instructional Unit. [GE]

CISCO CCNA SECURITY

NTEC 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 NTEC 222, or consent of Instructional Unit. [GE]

CISCO CCNA VOICE

NTEC 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 NTEC 222, or consent of Instructional Unit. [GE]

MICROSOFT SERVER ADMINISTRATOR 1

NTEC 234 6 Credits
44 hours of lecture 44 hours of lab

Covers installing and configuring Windows Server 2012. Introduction to Active Directory Domain Services, Managing Active Directory Domain Services Objects,

Automating Active Directory Domain Services Administrative, Implementing Networking Services, Implementing Local Storage, Implementing File and Print Services, Implementing Group Policy, Implementing Server Virtualization with Hyper-V. This course is part-one of a three-course sequence that helps prepare students for the MCSA (Microsoft Certified Solutions Associate) industry certification. Prerequisite: A grade of "C" or better in NTEC 132 and NTEC 103, or consent of Instructional Unit. [GE]

MICROSOFT SERVER ADMINISTRATOR 2

NTEC 235 6 Credits
44 hours of lecture 44 hours of lab

Covers the following: administration of Windows Server 2012; Implementing a Group Policy infrastruction; managing User and Service Accounts; maintaining Active Directory Domain Services; configuring and troubleshooting DNS; configuring and troubleshooting Remote Access; installing, configuring and troubleshooting the Network Policy Server role; optimizing File Services; increasing File System Security; implementing Update Management. This course is part-two of a three-course sequence that helps prepare students for the MCSA (Microsoft Certified Solutions Associate) industry certification. Prerequisite: A grade of "C" or better in both NTEC 132 and NTEC 103, or consent of Instructional Unit. [GE]

MICROSOFT SERVER ADMINISTRATOR 3

NTEC 236 6 Credits
44 hours of lecture 44 hours of lab

Covers configuration of advanced Windows Server 2012 services. Focus on implementing the following: Advanced Network Service, Advanced File Services, Dynamic Access Control, Network Load Balancing, Failover Clustering, Disaster Recovery, AD CS and AD FS. This course is part-three of a three-course sequence that helps prepare students for the MCSA (Microsoft Certified Solutions Associate) industry certification. Prerequisite: A grade of "C" or better in NTEC 234 or NTEC 235, or consent of Instructional Unit. [GE]

DATACENTER VIRTUALIZATION TECHNOLOGY

NTEC 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 NTEC 142, or consent of Instructional Unit. [GE]

SELECTED TOPICS

NTEC 280 1 - 6 Credits

Topics vary. May be repeated for credit. Prerequisite: Consent of Instructional Unit. [GE]

SPECIAL PROJECTS

NTEC 290 1 - 6 Credits

Opportunity to plan, organize, and complete special projects approved by the department. Prerequisite: Consent of Instructional Unit. [GE]

CAPSTONE EXPERIENCE: NETWORK TECHNOLOGIES

NTEC 297 3 Credits
11 hours of lecture 22 hours of lab

This course will normally be taken during the final quarter of the program. Students will apply their skills on many topics covered in the other degree program courses. Students will complete a project in a team/small group setting as they create a network design proposal document, design an enterprise network to meet established user requirements, create detailed documentation plans for implementation, create a functional demo/mock-up, and make a final presentation to the class. This course will provide students a hands-on experience designing an enterprise network based on user requirements. Topics include all aspects of network planning, design, and troubleshooting. Prerequisite: Cisco CCENT certification, or Microsoft MCP Server 2012/2016 certification required, completion of all required core coursework related to degree, and consent of Instructional Unit.

CAPSTONE EXPERIENCE: MICROSOFT TECHNOLOGIES

NTEC 298 3 Credits
11 hours of lecture 22 hours of lab

This course will normally be taken during the final quarter of the program. Students will apply their skills on many topics covered in the other degree program courses. Students will complete a project in a team/small group setting as they create a network design proposal document, design an enterprise network to meet established user requirements, create detailed documentation plans for implementation, create a functional demo/mock-up, and make a final presentation to the class. This course will provide students a hands-on experience designing an enterprise network based on user requirements. Topics include all aspects of network planning, design, and troubleshooting. Prerequisite: Microsoft MCP Server 2012 or 2016 certification required, completion of all core coursework related to degree, and consent of Instructional Unit.

CAPSTONE EXPERIENCE: CISCO TECHNOLOGIES

NTEC 299 3 Credits
11 hours of lecture 44 hours of lab

This course will normally be takien during the final quarter of the program. Students will apply their skills on many topics covered in the other degree program courses. Students will complete a project in a team/small group setting as they create a network design proposal document, design an enterprise network to meet established user requirements, create detailed documentation plans for implementation, create a functional demo/mock-up, and make a final presentation to the class. This course will provide students a hands-on experience designing an enterprise network based on user requirements. Topics include all aspects of network planning, design, and troubleshooting. Prerequisite: Cisco CCENT certification required, completion of all required core coursework related to degree and consent of Instructional Unit. [GE]

Nursing

FOUNDATIONS OF NURSING CONCEPTS

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 CLINICAL NURSING

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. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: Consent of Instructional Unit. [GE]

LIFESPAN ASSESSMENT CONCEPTS

NURS 113 2 Credits
22 hours of lecture

Introduction to health assessment and physical examination throughout the lifespan, and an introduction to nursing skills. Concurrent enrollment in NURS 110, 111, 114 and 115. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: Consent of Instructional Unit. [GE]

NURSING SKILLS APPLICATION I

NURS 114 1 Credit
22 hours of lab

Practice and nursing skill achievement on NURS 113 competencies. Concurrent enrollment in NURS 110, 111, 113 and 115. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: Consent of Instructional Unit. [GE]

NURSING SKILLS LAB I

NURS 115 2 Credits
44 hours of lab

Supervised skills practice and competency achievement in the nursing skills lab. Prerequisite: Concurrent enrollment in NURS 110, 111, 113, and 114. These courses are linked; failure in one course requires repeat of all concurrent courses. [GE]

FAMILY-CENTERED NURSING

NURS 122 2 Credits
22 hours of lecture

Theory and the nursing process related to the care of healthy children and their families. Physiologic and psychological adaption 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 123, 124, 127, and 128. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or above in NURS 110, 111, 113, 114, and 115, or consent of Instructional Unit. [GE]

FAMILY-CENTERED CLINICAL NURSING

NURS 123 5 Credits
110 hours of lab

Application of theoretical, assessment, and practice concepts for nursing care of the family prenatally through the child years. Concurrent enrollment in NURS 122, 124, 127, and 128. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or above in NURS 110, 111, 113, 114, and 115, or consent of Instructional Unit. [GE]

INTRODUCTION TO MENTAL HEALTH NURSING

NURS 124 1 Credit
11 hours of lecture

Introduction to mental health concepts including verbal and non-verbal communication techniques, boundary setting, and basic mental health assessment. Students will develop the skills needed to manage behavioral challenges in the healthcare setting. Concurrent enrollment in NURS 122, 123, 127, and 128. These courses are linked; failure in one course requires repeat of all concurrent

courses. Prerequisite: A grade of "C" or better in NURS 110, 111, 113, 114, and 115, or consent of Instructional Unit. [GE]

NURSING SKILLS APPLICATION II
NURS 127 1 Credit
22 hours of lab

Practice and nursing skill achievement on NURS 126 competencies. Concurrent enrollment in NURS 122, 123, 124 and 128. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or above in NURS 110 or consent of Instructional Unit. [GE]

NURSING SKILLS LAB II
NURS 128 2 Credits
44 hours of lab

Practice and nursing skill achievement of NURS 127 competencies. Concurrent enrollment in NURS 122, 123, 124, and 127. These courses are linked, failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 110 or consent of Instructional Unit. [GE]

MEDICAL SURGICAL NURSING CONCEPTS 1
NURS 135 3 Credits
33 hours of lecture

Introductory nursing management of medical-surgical health issues. Topics include but are not limited to: patient teaching/discharge planning, rehabilitation of medical-surgical patients, fluid and electrolytes, shock management, the immune response, infectious diseases, diabetes (including pediatric, adult and gestational), musculoskeletal disorders and the care of patients in the perioperative setting. All topics address patients throughout the lifespan, and include obstetric patients in a medical-surgical setting. Concurrent enrollment in NURS 136, 137, and 138. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 122, 123, 124, 127, and 128, or consent of Instructional Unit. [GE]

MEDICAL-SURGICAL CLINICAL NURSING I
NURS 136 6 Credits
132 hours of lab

Introductory medical/surgical concepts applied to the clinical nursing management of the patient in the acute care and community setting. Concurrent enrollment in NURS 135, 137, and 138. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 122, 123, 124, 127, and 128, or consent of Instructional Unit. [GE]

NURSING SKILLS APPLICATION III
NURS 137 1 Credit
22 hours of lab

Instruction and practice of nursing skills related to the care of the medical-surgical patient. Concurrent enrollment in NURS 135, 136, and 138. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 122 or consent of Instructional Unit. [GE]

NURSING SKILLS LAB III
NURS 138 2 Credits
44 hours of lab

Practice and nursing skill achievement of NURS 137 competencies. Concurrent enrollment in NURS 135, 136, and 137. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 122 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. Instructional methods include; two weeks of classroom sessions, group discussions, group learning activities, nursing skills lab activities. E-learning projects, written assignments, oral presentation, and independent study.

MEDICAL-SURGICAL NURSING CONCEPTS II

NURS 241 3 Credits

33 hours of lecture

Nursing management of medical-surgical health issues 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. All topics address patients throughout the lifespan, and includes obstetric patients in a medical-surgical setting. Concurrent enrollment in NURS 242. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or above in BIOL& 260, ENGL& 102, NUTR 103, PSYC& 200, and NURS 135 or consent of the Instructional Unit. [GE]

MEDICAL/SURGICAL CLINICAL NURSING II

NURS 242 8 Credits

176 hours of lab

Application of advanced medical-surgical concepts with emphasis on the management of the acutely ill client. Concurrent enrollment in NURS 241. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or above in BIOL& 260, ENGL& 102, NUTR 103, PSYC& 200, and NURS 135 or consent of the Instructional Unit. [GE]

SELECTED TOPICS

NURS 250 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]

MEDICAL-SURGICAL NURSING CONCEPTS III

NURS 251 2 Credits

22 hours of lecture

The study of common medical-surgical issues related to hormonal control, sensory perception, movement and coordination, and cancer. Emphasis is placed on the nurse's role as primary caregiver, manager and educator for a group of patients. The student will learn to plan and organize care for a group of patients with emphasis on the nursing process, rehabilitation, education, and the patient care delivery system. All topics address patients throughout the lifespan, and includes obstetric patients in a medical-surgical setting. Concurrent enrollment in NURS 252. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 241, or consent of Instructional Unit. [GE]

ADVANCED HOLISTIC CLINICAL NURSING

NURS 252 8 Credits

176 hours of lab

Emphasis is placed on the nurse's role as caregiver, manager and educator for a group of patients across medical-surgical and mental health settings. In the med/surg setting, the student will plan and organize care for a group of patients with emphasis on the nursing process, rehabilitation, education, and the patient care delivery system. In the mental health setting, the student will experience caring for patients in both inpatient and outpatient environments. Patient problems relate to functional impairment within acute and chronic phases of mental illness. Concurrent enrollment in NURS 251 and 253 is required. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 241, or consent of Instructional Unit. [GE]

MENTAL HEALTH NURSING CONCEPTS ADVANCED

NURS 253 2 Credits

22 hours of lecture

Mental health concepts spanning childhood through adulthood. Focus is on building a foundation of knowledge of mental illness, exploration of the interplay of genetic and environmental factors and identifying viable treatment options for the patient and family, with emphasis on the nurse's role in assessment and use of realistic interventions. Concurrent enrollment in NURS 254. These courses are linked; failure in one course requires repeat of both courses. Prerequisite: A grade of "C" or better in NURS 241, or consent of Instructional Unit. [GE]

PROFESSIONAL LEADERSHIP TRANSITION TO PRACTICE

NURS 261 2 Credits

22 hours of lecture

Theory of leadership and management principles applied by the professional nurse in the clinical setting. Topics include professional ethics, the Nurse Practice Act, change theory, evidence-based practice, quality control, fiscal management and nursing delegation in the clinical area. Concurrent enrollment in NURS 262, 263, and 264. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 251 and 253, or consent of Instructional Unit. [GE]

PROFESSIONAL LEADERSHIP SENIOR PRACTICUM

NURS 262 8 Credits

176 hours of lab

Advanced client care in a specialty of the student's interest. Clinical areas include acute care, critical care and care

of clients in the community setting. Emphasis is on developing leadership skills and independent practice as a professional nurse. Concurrent enrollment in NURS 261, 263, and 264. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 251 and 253, or consent of Instructional Unit. [GE]

PROFESSIONAL ROLE IN COMMUNITY SERVICE

NURS 263 1 Credit
22 hours of lab

Emphasis is on the role of the nurse serving her/his community as a volunteer and client advocate. The student will perform community service and work with agencies that provide services in our community for our at risk populations. The student also will have the opportunity to mentor novice peers in the nursing program. Concurrent enrollment in NURS 261, 262, and 264. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or better in NURS 251 and 253, or consent of Instructional Unit. [GE]

CAPSTONE NCLEX PREPARATION

NURS 264 1 Credit
11 hours of lecture

A ten-hour course geared toward helping the student prepare for the NCLEX test. This course will include strategies for success, key critical-thinking strategies, as well as review of content, questions and rationales. Concurrent enrollment in NURS 261, 262, and 263. These courses are linked; failure in one course requires repeat of all concurrent courses. Prerequisite: A grade of "C" or above in NURS 251 and 253, or consent of Instructional Unit. [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]

Nutrition

NUTRITION

NUTR& 101 3 Credits
33 hours of lecture

Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. Covers principles of balance nutrition, physiology and metabolism of nutrients, and changing nutritional needs throughout the human life span. Prerequisite: A grade of "C" or better in CHEM& 121 or higher. [NS]

NUTRITION IN HEALTHCARE II

NUTR 139 1 Credit
11 hours of lecture

Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. This course will cover the principles of nutrition in nursing and nutrition in health promotion from infants to older adults. Concurrent enrollment in NURS 135, 136, 137, 138. Prerequisite: A grade of "C" or better in NUTR& 101 and successful completion of the 1st and 2nd terms of the Nursing Program.

NUTRITION IN HEALTHCARE III

NUTR 240 1 Credit
11 hours of lecture

Builds on the concepts introduced in NUTR& 101 and NUTR 139. Examines of the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. This course will cover nutrition in the nursing clinical practice including nutrition needs and limitations of patients with acute and chronic illnesses. Concurrent enrollment in NURS 241 and 242. Prerequisite: A grade of "C" or better in NUTR& 101, NUTR 139 and successful completion of the first year of the Nursing Program. [NS]

Physical Education

CARDIO CONDITIONING

PE 100 1 Credit
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 Credit
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 Credit
22 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. [PE, SE]

SPEED, AGILITY, AND QUICKNESS
PE 107 1 Credit
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]

FUNCTIONAL FITNESS
PE 111 1 Credit
22 hours of lab
Utilizing functional movement patterns to improve core stabilization, posture, and balance. [PE, SE]

STRENGTH AND STRETCH
PE 112 1 Credit
22 hours of lab
Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [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 Credit
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 Credit
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]

SPORTS CONDITIONING: SOFTBALL
PESPC116 1 - 3 Credits
66 hours of lab
Strength and cardiovascular conditioning in preparation for competing in intercollegiate sports. [PE, SE]

SPORTS CONDITIONING: BASEBALL
PESPC117 1 - 3 Credits
66 hours of lab
Strength and cardiovascular conditioning in preparation for competing in intercollegiate sports. [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]

CROSS TRAINING
PE 118 2 Credits
44 hours of lab
Introduction to cross-training utilizing strength and conditioning principles and activities including: calisthenics, basic gymnastics, weightlifting and mobility. Cardio endurance and functional movement will also be covered and developed.

SPORTS CONDITIONING: TRACK AND FIELD
PESPC118 1 - 3 Credits
66 hours of lab
Strength and cardiovascular conditioning in preparation for competing in intercollegiate sports. [PE, SE]

CARDIO KICKBOXING-BEGINNING
PE 120 1 Credit
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 Credit
22 hours of lab
Introduction to hatha yoga (physical yoga) with an emphasis on postures, breathing and body-mind centering. [PE, SE]

HEALTHY HEART-BEGINNING
PE 123 1 Credit
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 Credit
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 Credit
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.

KETTLEBELL CONDITIONING
PE 126 1 Credit
22 hours of lab
Utilizing kettlebells in a variety of conditioning activities to develop muscular strength, power, cardiovascular endurance, and flexibility. Course will emphasize proper kettlebell technique and how to structure an exercise plan to meet individual goals. [HPE]

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
PEDNC130 1 Credit
22 hours of lab
Beginning ballet technique including barre and centre work. [PE, SE]

BALLROOM DANCE: MIXED
PEDNC131 1 - 3 Credits
66 hours of lab
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners in both smooth and latin style dances to include: waltz, tango, fox trot, quick step and Viennese waltz, mambo, cha cha, rhumba, samba, salsa.

BALLROOM DANCE: SMOOTH
PEDNC132 1 Credit
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.

BALLROOM DANCE: LATIN
PEDNC133 1 Credit
22 hours of lab
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin style dances include: mambo, cha cha, rhumba, samba, salsa.

CONTEMPORARY DANCE
PEDNC134 1 Credit
22 hours of lab
Fundamentals and techniques of modern dance and rhythmic self-expression. [PE, SE]

SWING DANCE-BEGINNING
PEDNC135 1 Credit
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]

MODERN JAZZ
PEDNC136 1 Credit
22 hours of lab
Beginning Modern Jazz technique. Students will study fundamental moves and learn a routine. [PE, SE]

HIP-HOP DANCE
PEDNC137 1 Credit
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]

ZUMBA
PEDNC140 1 - 3 Credits
66 hours of lab
A fusion of Latin and international music-dance themes, featuring aerobic/fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body.

BASKETBALL
PE 140 1 Credit
22 hours of lab
Ball handling, shooting, passing, offensive and defensive techniques, rules, strategy and competitive play. [PE, SE]

HULA
PEDNC141 1 Credit
22 hours of lab
Focus on Hawaiian traditional dance forms.

AFRICAN DANCE
PEDNC142 1 Credit
22 hours of lab
Introduction to African dance, which focuses on drumming, rhythm, and music predominantly of West Africa.

BOLLYWOOD
PEDNC143 1 Credit
22 hours of lab
Introduction to dances of India, sometimes referred to as Indian Fusion. Dance styles focus on semi-classical, regional, folk, bhangra, and everything in between--up to westernized contemporary bollywood dance.

BOWLING
PE 143 1 Credit
22 hours of lab
Techniques, styles of play, rules of courtesy, scoring and competitive games. [PE, SE]

IRISH DANCE
PEDNC144 1 Credit
22 hours of lab
Introduction to Irish dance, focusing on soft shoe and Ceili (group) dances. Dances include reel, jig, and hornpipe. [PE]

BELLY DANCE
PEDNC145 1 Credit
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]

FENCING-FOIL
PE 147 1 Credit
22 hours of lab
Movement of fencing plus defense, offense, rules of bouting, officiating, and competition. [PE, SE]

SOCCER
PE 150 1 Credit
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]

T'AI CHI
PEMAR150 1 Credit
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]

MARTIAL ARTS: TAE KWON DO
PEMAR151 1 Credit
22 hours of lab
Tae Kwon Do is a Korean martial art that predominately focuses on kicking. [PE, SE]

MARTIAL ARTS: KUNG FU
PEMAR152 1 Credit
22 hours of lab
Kung-Fu is a Chinese method of self-defense. Students will learn history, philosophy, basic strikes, blocks, and escapes from various attacks and grabs. [PE, SE]

MARTIAL ARTS: BRAZILIAN JIU-JITSU
PEMAR153 1 Credit
22 hours of lab
Brazilian Jiu-Jitsu is a Brazilian sport/self defense that uses grappling, wrestling, and locking techniques. A uniform is required. [PE, SE]

MARTIAL ARTS: JUDO
PEMAR154 1 Credit
22 hours of lab
Judo is a close-quarter combat martial art where students learn falling techniques, basic takedowns, escapes, and joint locks. [PE, SE]

SELF DEFENSE
PEMAR155 1 Credit
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]

TENNIS
PE 155 1 Credit
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 Credit
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 Credit
22 hours of lab

Ultimate Frisbee fundamentals: individual skill development, rules, game play, and strategies. [PE, SE]

AQUA EXERCISE
PE 171 1 Credit
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]

BEGINNING SWIMMING
PE 175 1 Credit
22 hours of lab

Learn and improve swimming, water survival, and safety skills. Introduction to Red Cross swimming strokes, while developing individual skill, endurance and comfort in the water.

SWIMMING-INTERMEDIATE
PE 176 1 Credit
22 hours of lab

Continuation of PE 175 for students who need additional instruction and practice to improve and increase their swimming skill and confidence.

SWIM CONDITIONING-BEGINNING
PE 179 1 Credit
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 Credit
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 Credit
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 Credit
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 Credit
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]

CIRCUIT FITNESS - INTERMEDIATE
PE 204 1 Credit
22 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: PE 104. [PE, SE] [PNP]

SPEED, AGILITY, AND QUICKNESS
PE 207 1 Credit
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]

FUNCTIONAL FITNESS
PE 211 1 Credit
22 hours of lab

Continuation of PE 111. Utilizing functional movement patterns to improve core stabilization, posture, and balance. More advanced techniques introduced. Prerequisite: PE 111. [PE, SE]

STRENGTH AND STRETCH
PE 212 1 Credit
22 hours of lab

Continuation of PE 112. Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. 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 Credit
22 hours of lab

Designed for the student who is interested in a more in-depth approach to advanced weight training exercises, programs, and systems.

FITNESS CENTER-INTERMEDIATE
PE 216 1 Credit
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]

SPORTS CONDITIONING INTERMEDIATE: SOFTBALL
PESPC216 1 - 3 Credits
66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate sports. Prerequisite: PESPC 116. [PE, SE]

SPORTS CONDITIONING INTERMEDIATE: BASEBALL
PESPC217 1 - 3 Credits
66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate sports. Prerequisite: PESPC 117. [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]

SPORTS CONDITIONING INTERMEDIATE: TRACK & FIELD
PESPC218 1 - 3 Credits
66 hours of lab

Strength and cardiovascular conditioning in preparation for competing in intercollegiate sports. Prerequisite: PESPC 118. [PE, SE]

CARDIO KICKBOXING-INT
PE 220 1 Credit
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 Credit
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]

HEALTHY HEART-INTERMEDIATE
PE 223 1 Credit
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 Credit
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 Credit
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
PEDNC230 1 Credit
22 hours of lab

Stronger techniques with more advanced steps and combinations including toe. Prerequisite: PEDNC 130. [PE, SE]

BALLROOM DANCE-INTERMEDIATE: MIXED
PEDNC231 1 - 3 Credits
66 hours of lab

Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners in both smooth and latin style dances to include: waltz, tango, fox trot, quick step and Viennese waltz, mambo, cha cha, rhumba, samba, salsa. Prerequisite: PEDNC 131.

BALLROOM DANCE-INTERMEDIATE: SMOOTH
PEDNC232 1 Credit
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: PEDNC 131 or PEDNC 132. [PE, SE]

BALLROOM DANCE-INTERMEDIATE: LATIN
PEDNC233 1 Credit
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. Prerequisite: PEDNC 131 or PEDNC 132. [PE, SE]

CONTEMPORARY DANCE-INTERMEDIATE
PEDNC234 1 Credit
22 hours of lab

Intermediate techniques with opportunities for individual and group composition. Prerequisite: PEDNC 134.

SWING DANCE-INTERMEDIATE
PEDNC235 1 Credit
22 hours of lab

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: PEDNC 135.

MODERN JAZZ-INTERMEDIATE
PEDNC236 1 Credit
22 hours of lab

Refinement of jazz technique and skill improvement. Prerequisite: PEDNC 136.

HIP-HOP DANCE-INTERMEDIATE
PEDNC237 1 Credit
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: PEDNC 137.

ZUMBA INTERMEDIATE
PEDNC240 1 - 3 Credits
66 hours of lab

A fusion of Latin and International music-dance themes, featuring aerobic/fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body. Prerequisite: PEDNC 140.

BASKETBALL-INTERMEDIATE
PE 240 1 Credit
22 hours of lab

Continuation of skills, practice, and competitive play. Prerequisite: PE 140. [PE, SE]

HULA INTERMEDIATE
PEDNC241 1 Credit
22 hours of lab
Focus on Hawaiian traditional dance forms. Prerequisite: PEDNC 141.

AFRICAN DANCE INTERMEDIATE
PEDNC242 1 Credit
22 hours of lab
Continuation of African dance, which focuses on drumming, rhythm, and music predominantly of West Africa. Prerequisite: PEDNC 142.

BOLLYWOOD INTERMEDIATE
PEDNC243 1 Credit
22 hours of lab
Continuation of the dances of India, sometimes referred to as Indian Fusion. Dance styles focus on semi-classical, regional, folk, bhangra, and everything in between--up to westernized contemporary bollywood dance. Prerequisite: PEDNC 143.

BOWLING-INTERMEDIATE
PE 243 1 Credit
22 hours of lab
Advanced instruction in all phases of bowling including league play and competition. Prerequisite: PE 143. [PE, SE]

IRISH DANCE-INTERMEDIATE
PEDNC244 1 Credit
22 hours of lab
Intermediate Irish Dance course on more advanced soft shoe solo and Ceili (group) dances. Dances include the reel, jig, and hornpipe. Prerequisite: PEDNC 144.

BELLY DANCE-INTERMEDIATE
PEDNC245 1 Credit
22 hours of lab
Continuation of the skills learned in PEDNC 145, plus new variations and intermediate study of Middle Eastern Dance techniques. Prerequisite: PEDNC 145.

FENCING-FOIL,SABRE/EPEE
PE 246 1 Credit
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 Credit
22 hours of lab
Skill refinement and advanced technique for experienced foil fencers. Prerequisite: PE 147. [PE, SE]

GOLF-INTERMEDIATE
PE 248 1 Credit
22 hours of lab
More advanced instruction on golf swing, short game, and golf strategies. [PE, SE]

SOCCER-INTERMEDIATE
PE 250 1 Credit
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]

T'AI CHI - INTERMEDIATE
PEMAR250 1 Credit
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. Prerequisite: PEMAR 150. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: TAE KWON DO
PEMAR251 1 Credit
22 hours of lab
Tae Kwon Do is a Korean martial art that predominately focuses on kicking. Prerequisite: PEMAR 151. [PE, SE]

MARTIAL ARTS-INTERMEDIATE:KUNG FU
PEMAR252 1 Credit
22 hours of lab
Kung-Fu is a Chinese method of self-defense. Students will learn history, philosophy, basic strikes, blocks, and escapes from various attacks and grabs. Prerequisite: PEMAR 152. [PE, SE]

MARTIAL ARTS-INTERMEDIATE:BRAZILIAN JIU-JITSU
PEMAR253 1 Credit
22 hours of lab
Brazilian Jiu-Jitsu is a Brazilian sport/self defense that uses grappling, wrestling, and locking techniques. A uniform is required. Prerequisite: PEMAR 153. [PE, SE]

MARTIAL ARTS-INTERMEDIATE:JUDO
PEMAR254 1 Credit
22 hours of lab
Judo is a close-quarter combat martial art where students learn falling techniques, basic takedowns, escapes, and joint locks. Prerequisite: PEMAR 154. [PE, SE]

TENNIS-INTERMEDIATE
PE 255 1 Credit
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 Credit
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 Credit
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 Credit
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 Credit
22 hours of lab

Continuation of water exercise conditioning through stretching, flexibility, abdominal and back strength. Prerequisite: PE 171. [PE, SE]

SWIMMING-STROKE IMPROVEMENT
PE 275 1 Credit
20 hours of lab

Review Red Cross swimming strokes, water survival and safety skills. For the swimmer who is comfortable in deep water and can swim 25 yards. Prerequisite: PE 175.

SWIM CONDITIONING-INTERMEDIATE
PE 279 1 Credit
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 Credit
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 Credit
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
PEEXS291 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. Prerequisite: A grade of "C" or better in FT 150, BIOL 164, or BIOL& 251, or consent of Instructional Unit. [SE] [PNP]

MENTAL PERFORMANCE IN SPORTS
PEEXS293 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. [SE] [PNP]

INTRODUCTION TO SPORTS OFFICIATING
PEEXS295 2 Credits
22 hours of lecture

This is an introductory course to sports officiating, exploring basic officiating skills including but not limited to communication, conflict management, professionalism, and personal fitness. In addition, practical experience in sport-specific officials associations will prepare students for national and local certifications that will enhance employment opportunities.

INTRODUCTION TO SPORTS OFFICIATING
PE 295 2 Credits
22 hours of lecture

This is an introductory course to sports officiating, exploring basic officiating skills including but not limited to communication, conflict management, professionalism, and personal fitness. In addition, practical experience in sport-specific officials associations will prepare students for national and local certifications that will enhance employment opportunities.

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]

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 Credit
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 sue, 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

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] [PNP]

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]

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]

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. Prerequisite: Successful completion of MATH 093 or 095, eligibility for college level math, or equivalent placement demonstrated is required. [SE]

SYMBOLIC 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. Prerequisite: Successful completion of MATH 093, or 095, or eligibility for college level math, or equivalent placement demonstrated is required. Cannot receive credit for both PHIL& 106 and 120. [HA, SE]

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 adaptions 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]

ETHICS IN MANAGEMENT
PHIL 420 5 Credits
55 hours of lecture

Examines the role of ethics and social responsibility in the management of public and private sectors of organizations and businesses. Theoretical concepts in business ethics will be applied to real-world situations based on challenges managers face. An emphasis on contemporary trends and corporate responsibilities with respect to ethical, legal, economic, regulatory conditions, and the needs of stakeholders in the global marketplace will be included. Case studies will be used to explore real-world ethical and social responsibility situations. [HA]

Phlebotomy

PHLEBOTOMY EDUCATION W/LAB
PHLE 115 3 Credits
22 hours of lecture 22 hours of lab

Training in basic venipuncture and skin puncture techniques as well as proper specimen-handling procedures as dictated by the Clinical and Laboratory Standards Institute (CLSI); (formerly NCCLS), and to function as an internal member of the clinical laboratory team. Cannot receive credit for both PHLE 115 and HEOC 115. Completion of or concurrent enrollment in BMED 111, 138, CMST& 210. Concurrent enrollment in PHLE 116 and PHLE 115L required. Prerequisite: High School completion or GED (or higher); READ 087 or higher (or COMPASS score of 74); ENGL 098 or higher (or COMPASS score of 78), BMED 110; FACPR 032; HEOC 100 or BIOL 164/165; HEOC 102, HEOC 120 and written consent from the Credentials Office. [GE]

BASIC LABORATORY FOR THE PHLEBOTOMIST
PHLE 116 3 Credits
11 hours of lecture

Learn to perform basic laboratory procedures that are required during specimen processing in a laboratory setting, including microcollection, pipetting, aliquoting, centrifugation, and basic equipment quality control. Cannot receive credit for both PHLE 116 and HEOC 160. Completion of PHLE 115 or concurrent enrollment in the Clark College Phlebotomy Program and Consent of Instructional Unit. Prerequisite: Concurrent enrollment in the Clark College Phlebotomy Program and Consent of Instructional Unit. [GE]

PHLEBOTOMY CLINICAL EXPERIENCE
PHLE 197 5 Credits
150 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 patients. Cannot receive credit for both PHLE 197 and HEOC 197. Contact a Health Occupations Advisor for additional requirements necessary for enrolling in this course. Concurrent enrollment in PHLE 198 Clinical Seminar is required. Prerequisite: Satisfactory completion of PHLE 115 and PHLE 116 and all of the course requirements, and consent of the Instructional Unit. [GE]

PHLEBOTOMY CLINICAL SEMINAR
PHLE 198 1 Credit
11 hours of lecture

Students concurrently enrolled in PHLE 197, Phlebotomy Clinical Experience, will receive support, direction and the necessary tools to aid in future employment in the phlebotomy and healthcare field. Concurrent enrollment in PHLE 197 is required. Attendance at all seminar sessions is mandatory in order to successfully complete the course. Cannot receive credit for both PHLE 198 and HEOC 198. Prerequisite: Satisfactory completion of PHLE 115 and PHLE 116 and all course requirements or consent of the Instructional Unit. [GE]

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

A chemistry-focused physical science class, in which we will explore practical applications of chemical reactions. Different branches of chemistry such as inorganic, organic, biochemistry and green chemistry will be discussed as they pertain to the real world. 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. Cannot receive credit for both PHSC 104 and ENGR& 104. [NS, SE]

OUR CHEMICAL WORLD
PHSC 106 3 Credits
33 hours of lecture

Introduction to basic chemical concepts using cooperative learning and the backdrop of environmental science. This course is writing-intensive, requiring weekly essays discussing select chemical applications in the world around us. Topics include: energy and nutrient flow through the ecosystem; chemical hurdles facing agriculture; chemical, physical, and nuclear reactions of energy production; ramifications of chemical pollution; green chemical solutions. Intended for non-science majors with little or no scientific background. Prerequisite: A grade of "C" or better in ENGL 098, or eligibility for ENGL 101. [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 though 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] [PNP]

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 Credit
11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS & 124 is required. [PNP]

PHYSICS CALCULATIONS
PHYS 092 1 Credit
11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 125 required. [PNP]

PHYSICS CALCULATIONS
PHYS 093 1 Credit
11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 126 required. [PNP]

PHYSICS CALCULATIONS
PHYS 094 1 Credit
11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 221 required.

PHYSICS CALCULATIONS
PHYS 095 1 Credit
11 hours of lecture

Methods of problem-solving in physics. Concurrent enrollment in PHYS& 222 required.

PHYSICS CALCULATIONS
PHYS 096 1 Credit
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]

PHYSICS LAB NON-SCI MAJORS
PHYS& 101 1 Credit
33 hours of lab

Laboratory study of basic physics concepts for non-science majors, technical students, or students who desire a PHYS& 121 or 221 preparatory course. Concurrent enrollment in PHYS 100 course required or consent of the instructor. [NS, SE]

GENERAL PHYSICS LAB I
PHYS& 124 1 Credit
33 hours of lab

Exploration of classical physics topics in mechanics through laboratory experience. Concurrent enrollment in PHYS& 134. [NS, SE]

GENERAL PHYSICS LAB II
PHYS& 125 1 Credit
33 hours of lab

Exploration of classical physics topics in fluids, thermodynamics, and sound through laboratory experience. Concurrent enrollment in PHYS& 135. [NS, SE]

GENERAL PHYSICS LAB III
PHYS& 126 1 Credit
33 hours of lab

Exploration of classical physics topics in electricity and magnetism, optics, and modern physics through laboratory experience. Concurrent enrollment in PHYS& 136. [NS, SE]

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. [NS, SE]

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. [NS, SE]

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. [NS, SE]

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 LAB I
PHYS& 231 1 Credit
33 hours of lab

Students will explore classical physics topics in mechanics through laboratory experience. Concurrent enrollment in PHYS& 241. [NS, SE]

ENGINEERING PHYSICS LAB II
PHYS& 232 1 Credit
33 hours of lab

Students will explore classical physics topics in fluids, thermodynamics, and sound through laboratory experience. Concurrent enrollment in PHYS& 242. [NS, SE]

ENGINEERING PHYSICS LAB III
PHYS& 233 1 Credit
33 hours of lab

Students will explore classical physics topics in electricity and magnetism, optics, and modern topics through laboratory experience. Concurrent enrollment in PHYS& 243. [NS, SE]

ENGINEERING PHYSICS I
PHYS& 241 4 Credits
44 hours of lecture

Classical physics topics in mechanics. For students majoring in engineering, chemistry, physics, geology, or mathematics. Beginning course of a three-quarter se-

quence offered each year starting fall and winter quarters. Concurrent enrollment in PHYS& 231 and PHYS 094. Prerequisite: Completion of or concurrent enrollment in MATH& 152 (or MATH 211). [NS, SE]

ENGINEERING PHYSICS II
PHYS& 242 4 Credits
44 hours of lecture

Physics topics in fluids, heat, thermodynamics, sound, electricity, and magnetism. Second quarter of a three-quarter sequence beginning with PHYS& 241. Concurrent enrollment in PHYS& 232 and PHYS 095. Prerequisite: A grade of "C" or better in PHYS& 241. [NS, SE]

ENGINEERING PHYSICS III
PHYS& 243 4 Credits
44 hours of lecture

Topics in electricity, magnetism, atomic and nuclear physics, and optics. Third quarter of a three-quarter sequence beginning with PHYS& 241. Concurrent enrollment in PHYS& 233 and PHYS 096. Prerequisite: A grade of "C" or better in PHYS& 242. [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]

MODEL UNITED NATIONS
POLS 151 2 Credits
22 hours of lecture

The United Nations and its functions, current problems, and world reactions to them. Entering students first register for 151, then subsequent numbers for up to a total of 6 quarters. [SE, SS]

MODEL UNITED NATIONS
POLS 152 2 Credits
22 hours of lecture

The United Nations and its functions, current problems, and world reactions to them. Entering students first register for 151, then subsequent numbers for up to a total of 6 quarters. [SE, SS]

MODEL UNITED NATIONS
POLS 153 2 Credits
22 hours of lecture

The United Nations and its functions, current problems, and world reactions to them. Entering students first register for 151, then subsequent numbers for up to a total of 6 quarters. [SE, SS]

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

The United Nations and its functions, current problems, and world reactions to them. Entering students first register for 151, then subsequent numbers for up to a total of 6 quarters. [SE, SS]

MODEL UNITED NATIONS

POLS 252 2 Credits
22 hours of lecture

The United Nations and its functions, current problems, and world reactions to them. Entering students first register for 151, then subsequent numbers for up to a total of 6 quarters. [SE, SS]

MODEL UNITED NATIONS

POLS 253 2 Credits
22 hours of lecture

The United Nations and its functions, current problems, and world reactions to them. Entering students first register for 151, then subsequent numbers for up to a total of 6 quarters. [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]

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: Cumulative GPA of 2.00 or higher. [SE, SS] [PNP]

PSYCHOSOCIAL ISSUES IN HEALTH CARE I

PSYC 122 1 Credit
11 hours of lecture

Examines some determinants of health and illness including social, psychological, environmental, spiritual, and

cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology and sociology to the direct care of patients/clients in various healthcare settings. Focus on women, children, and families. Taught concurrently with NURS 122. Concurrent enrollment in NURS 122, NURS 123, NURS 124, NURS 127, NURS 128, and PSYC 124. Prerequisite: A grade of "C" or better in PSYC& 100, NURS 110, NURS 111, NURS 113, NURS 114, and ENGL 112. [SS]

PSYCHOSOCIAL ISSUES IN HEALTH CARE II

PSYC 124 2 Credits
22 hours of lecture

Examines some determinants of health and illness including social, psychological, environmentatl, spiritual, and cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology to the direct care of patients/clients in various healthcare settings. focus on therapeutic communication and behavioral symptomology specific to anxiety, depression, delirium and agitation. Concurrent enrollment in NURS 122, NURS 123, NURS 127, and NURS 128. Prerequisite: A grade of "C" or better in NURS 110, NURS 111, NURS 113, NURS 114, and NURS 115. [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 or (PSYC 101) 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]

PSYCHOSOCIAL ISSUES IN HEALTH CARE III

PSYC 253 2 Credits
22 hours of lecture

Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology and sociology to the direct care of patients/clients in various healthcare settings. Focus on persons with acute mental issues and/or chronic mental illnesses. Concurrent enrollment in NURS 251 and NURS 252. Prerequisite: A grade of "C" or better in NURS 241 and NURS 242. [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]

ORGANIZATIONAL BEHAVIOR

PSYC 315 5 Credits
55 hours of lecture

Focuses on managing relationships in organizations. Students will gain practical experience in managing teams, resolving conflict, and building professional and effective relationships. Special emphasis will be placed on managing difficult behavioral human situations, whether among employees within the organization or with external stakeholders. [HR]

Professional Technical Computational Skills

PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS

PTCS 110 5 Credits
55 hours of lecture

Intended for students enrolled in career technical education programs. It includes topics from algebra, geometry, statistics, inductive reasoning, and trigonometry with an emphasis on applications and measurement. This course will satisfy the computational requirement for the Certificate of Proficency, Associate of Applied Science and the Associate of Applied Technology. Prerequisite:

A grade of "C" or better in MATH 030 or recommending score on placement test. [CP]

Professional Technical Writing

INTRODUCTION TO APPLIED TECHNICAL WRITING

PTWR 135 5 Credits
55 hours of lecture

Introduction to principles of effective workplace communication: focus on methods of writing clear, concise documents for technical audiences and purposes; summarizing technical information; collaborating successfully in small groups. For students of all technical fields. 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, 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: 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, SS]

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 sociocultural 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] [PNP]

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. Intended for students with little or no previous experience. Not open to native speakers. Students with one year of recent high school Spanish with a grade of B or higher need to enroll in SPAN& 122; students with two years of recent high school school Spanish with a B or higher need to enroll in SPAN& 123. Over and under-qualified students must change to the appropriate level during week one. [HA, SE]

SPANISH II
SPAN& 122 5 Credits
55 hours of lecture

Continuation of the elementary Spanish sequence. Students should have successfully completed SPAN& 121, one term of college of Spanish, or one recent year of high school Spanish with a grade of B or higher. Students with two years of recent high school Spanish with B or higher need to enroll in SPAN& 123. Over and under-qualified students must change to the appropriate level during week one. [HA, SE]

SPANISH III
SPAN& 123 5 Credits
55 hours of lecture

Conclusion of the three-quarter sequence in elementary Spanish. Students should have successfully completed SPAN& 122, two terms of college Spanish, or two recent years of high school Spanish with a grade of B or higher. Over and under-qualified students must change to the appropriate level during week one. [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 Credit
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 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. Students should have successfully completed SPAN& 123, three terms of college Spanish, or three to four recent years of high school Spanish with a grade of B or higher. Over and under-qualified students must change to the appropriate level during week one. [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. Students should have successfully completed SPAN& 221 or the 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. Students should have successfully completed SPAN& 222 or the 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]

Surveying & Geomatics

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]

COMPUTATION AND PLATTING
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
33 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]

PROFESSIONAL ETHICS
SURV 123 1 Credit
11 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] [PNP]

INTRODUCTION TO GIS
SURV 125 3 Credits
22 hours of lecture 22 hours of lab

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 122. [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: Completion of or concurrent enrollment 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 3 Credits
22 hours of lecture 22 hours of lab

Introduction to ArcGIS. GIS concepts, methodologies, and techniques. Prerequisite: A grade of "C" or better in SURV 125. [GE]

MAP PROJECTIONS
SURV 252 2 Credits
22 hours of lecture

Overview of map projections with emphasis on conformal projections used in the geomatics profession. U.S. State Plane Coordinate system, implementation, and computations. Prerequisite: Completion of or concurrent enrollment in SURV 121. [GE]

INTRODUCTION TO GPS
SURV 253 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 SURV 252. [GE]

SURVEY SOFTWARE APPLICATIONS
SURV 264 4 Credits
33 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

INTRODUCTION TO WELDING
WELD 102 6 Credits
44 hours of lecture 44 hours of lab

An introduction to the welding industry and the various career paths available within the industry. Practical application in general shop safety and department-required training on metal working equipment. Prerequisite: A grade of "C" or better, or concurrent enrollment in HLTH 120, and eligibility for MATH 030. [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 advanced welders. Specialized instruction and American Welding Society welder certification is available to advanced students. [GE]

WELDING BLUEPRINT READING
WELD 110 5 Credits
55 hours of lecture

Interpretation of welding blueprints, welding symbols, tolerances and structural shapes. [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]

GAS METAL ARC WELDING
WELD 140 6 Credits
33 hours of lecture 66 hours of lab

Instructional theory and application of Gas Metal Arc Welding processes on ferrous metals. Concurrent enrollment in WELD 141 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102 or consent of Instructional Unit. [GE]

GAS METAL ART FABRICATION
WELD 141 6 Credits
33 hours of lecture 66 hours of lab

Application of concepts of gas metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. Concurrent enrollment in WELD 140 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102 or consent of Instructional Unit. [GE]

FLUX CORE ARC WELDING
WELD 142 6 Credits
33 hours of lecture 66 hours of lab

Instructional theory and application of arc cutting processes/oxyfuel cutting and flux core arc welding processes on ferrous metals. Concurrent enrollment in WELD 143 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 140 and 141 or consent of Instructional Unit. [GE]

FLUX CORE ARC FABRICATION
WELD 143 6 Credits
33 hours of lecture 66 hours of lab

Application of concepts of flux core arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. Concurrent enrollment in WELD 142 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 140 and 141, or consent of Instructional Unit. [GE]

SHIELDED METAL ARC WELDING
WELD 144 6 Credits
33 hours of lecture 66 hours of lab

Instructional theory and application of arc cutting processes/oxyfuel cutting and shielded metal arc welding processes on ferrous metals. Concurrent enrollment in WELD 141 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 142 and 143, or consent on Instructional Unit. [GE]

SHIELDED METAL ARC FABRICATION
WELD 145 6 Credits
33 hours of lecture 66 hours of lab

Application of concepts of shielded metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. Concurrent enrollment in WELD 140 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 142 and 143, or consent of Instructional Unit. [GE]

WELDING CERTIFICATION
WELD 156 2 Credits
44 hours of lab

Students will review the requirements to earn program required AWS welding certifications. Prerequisite: Successful completion with a "C" or better of WELD 102 and consent of Instructional Unit. [GE] [PNP]

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]

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]

GAS TUNGSTEN ARC WELDING
WELD 240 6 Credits
33 hours of lecture 66 hours of lab

Instructional theory and application of arc cutting process/oxyfuel cutting and gas tungsten arc welding processes on ferrous metals. Concurrent enrollment in WELD 241 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 144 and 145, or consent of Instructional Unit. [GE]

GAS METAL ARC FABRICATION
WELD 241 6 Credits
33 hours of lecture 66 hours of lab

Application of concepts of gas tungsten arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. Concurrent enrollment in WELD 240 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 144 and 145, or consent of Instructional Unit. [GE]

ADVANCED WIRE FEED WELDING
WELD 242 6 Credits
33 hours of lecture 66 hours of lab

Advanced instructional theory and application of arc cutting processes/oxyfuel cutting, sub-arc welding and wire feed welding processes on ferrous and nonferrous metals. Concurrent enrollment in WELD 243 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 142, 240 and 241, or consent of Instructional Unit. [GE]

ADVANCED WIRE FEED FABRICATION
WELD 243 6 Credits
33 hours of lecture 66 hours of lab

Application of concepts of wire feed welding processes on ferrous and non ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. Concurrent enrollment in WELD 242 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 143, 240 and 241 or consent of Instructional Unit. [GE]

ADVANCED GAS TUNGSTEN ARC WELDING
WELD 244 6 Credits
33 hours of lecture 66 hours of lab

Advanced instructional theory and application of arc cutting processes/oxyfuel cutting and gas tungsten arc welding processes on ferrous and nonferrous metals. Concurrent enrollment in WELD 245 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 240, 242 and 243 or consent of Instructional Unit. [GE]

ADVANCED GAS TUNGSTEN ARC FABRICATION
WELD 245 6 Credits
33 hours of lecture 66 hours of lab

Application of concepts of advanced gas tungsten arc welding processes on nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. Concurrent enrollment in WELD 244 or consent of Instructional Unit. Prerequisite: A grade of "C" or better in WELD 102, 241, 242 and 243, or consent of Instructional Unit. [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

Contemporary feminist theory analyzing systems of power, privilege and inequity 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 A.A. transfer degree. Prerequisite: A grade of "C" or better in ENGL 098 taken at 5 Credits or recommended score on the writing 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, SS] [PNP]

RACISM & WHITE PRIVILEGE IN THE U.S.
WS 225 3 Credits
33 hours of lecture

Critical examination of racism and white privilege in the U.S. analyzing systems of power, privilege and inequity; racial identity; and intercultural competence. [SE, SS] [PNP]

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 College, in District No. 14, is one of 34 Washington community and technical colleges, and 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.

Several of the college's programs are also accredited by program-specific accrediting bodies:

- The associate degree nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc.* (formerly known as the National League for Nursing Accrediting Commission).
- The dental hygiene program is accredited by the American Dental Association, Commission on Dental Accreditation.*
- The medical assistant certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs.
- The addiction counselor program is accredited by the National Addiction Studies Accreditation Commission.
- The automotive program is accredited by the National Automotive Technicians Education Foundation and certified by the National Institute for Automotive Service Excellence.
- The Automotive T-TEN program is a certified Toyota Technician Training Education Network (T-TEN) program.

** Agencies recognized by the U.S. Department of Education as accrediting agencies.*

College Assessment

Clark College is committed to guiding individuals to achieve their educational and professional goals. To carry out that commitment, the college continuously assesses student learning by gathering information about the effectiveness of its programs and services, and the achievements and perspectives of its alumni. This information is used to monitor the effectiveness of educational programs as well as student and academic services.

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. Occasionally, Clark College faculty and staff may present information about their assessment projects at professional conferences or in publications, for the purpose of contributing to professional knowledge in the field of education. Aggregate assessment data may be used in these presentations, such as aggregate results from quizzes, surveys, etc. Students' consent must be obtained prior to presenting individual-level data.

Student Rights and Responsibilities

Clark College provides its community and students with education and services of the highest quality. Admission to Clark College carries with it the presumption that students will conduct themselves as responsible members of the college community. Clark College expects all students to conduct themselves in a manner consistent with its high standards of scholarship and conduct.

Student rights, responsibilities, and the Code of Student Conduct can be found at: www.clark.edu/clark-and-community/about/policies-procedures/student_code.php. A printed copy can be requested in the Office of the Vice President for Student Affairs, Gaiser Hall 204 (GHL 204). These standards of conduct for students promote Clark College's educational purposes and provide students a full understanding of their rights and responsibilities.

Nondiscrimination and Equity

Clark College recognizes, understands, confronts and challenges the institutional systems of privilege, power, and inequity so that all members of the Clark College community can support student learning. Clark College endeavors to facilitate student learning by providing the conditions that improve educational outcomes and eliminates systemic disparities among all groups.

Clark College is committed to freedom from discrimination for all members of the College community. The College expressly prohibits discrimination on the basis of race, color, national origin, age, perceived or actual physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, marital status, creed, religion, honorably discharged veteran or military status, or use of a trained guide dog or service animal. In addition, the College is committed to freedom from all forms of harassment including sexual harassment, domestic violence and harassment in the workplace. All claims of discrimination and harassment will be investigated by the designee of the President.

Discrimination is prohibited by Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and ADA Amendments Act, the Age Discrimination Act of 1975, the Violence Against Women Reauthorization Act, and Washington State's Law Against Discrimination, Chapter 49.60 RCW and its implementing regulations. For more information regarding the discrimination and harassment policy, please refer to www.clark.edu/clark-and-community/about/policies-procedures/grievance_procedure.php

Any person who believes she or he has 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 encourages the timely reporting of any incidents of discrimination or harassment. For complainants who wish to submit a complaint, a formal complaint form is available online at www.clark.edu/campus-life/student-support/student_complaint/index.php. Hard copies of the complaint form are available at the following locations on campus: the Diversity Center, Gaiser Hall 214 (GHL 214), the Office of the Vice President of Student Affairs, Gaiser Hall 204 (GHL 204), or the Office of Human Resources, Baird Administration Building 144 (BRD 144).

Behavioral Intervention and Threat Assessment (BITA) 360-992-2401

Clark College strives to maintain a healthy and safe environment for all students, faculty and staff. Life can be challenging, and people may need support and referrals for assistance. Clark College's BITA team is composed of administrators, faculty counselors, and a case manager that collaboratively work to maintain a safe college environment. BITA works directly with students, faculty, and staff to respond to student behaviors and to identify students that pose a danger to self, others, or the college community. To learn more about BITA or submit a referral of concern at www.clark.edu/campus-life/student-support/bita/index.php.

Notification of Students' Rights Under the Family Educational 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 Enrollment Services, 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, terms 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; and 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 Enrollment Services.

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
   400 Maryland Ave. S.W.
   Washington, DC 20202-5920

   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 Enrollment Services.

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) (3 year) information for student cohorts from 2008, 2009, 2010, and 2011 along with the GRS 200% (4 year) information for student cohorts from 2007, 2008, 2009, and 2010. The federal graduation rate survey definitions pertain to a specific cohort of Clark College students: new students attending full time, who plan to earn a degree or certificate, and without prior college experience.

Combined (3 year) transfer out/completion/graduation rate, 4-year average: 43%
GRS (3 year) completion or graduation rate, 4-year average: 26%
GRS (3 year) transfer out rate, 4-year average: 18%
GRS 200% (4 year) completion or graduation rate, 4-year average: 31%

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.

View the most recent cohort graduation rates at the National Center for Education Statistics website:

Equity in Athletics

The Equity in Athletics Disclosure Act is designed to make prospective students aware of a school's commitment to providing equitable athletic opportunities for its male and female students. Any co-educational institution of higher education that participates in a federal student aid program must prepare an EADA report each October. For a copy of the report, please contact the Athletic Department, O'Connell Sports Center, 360-992-2268, or visit the EADA website at ope.ed.gov/athletics/.

Consumer Information

All consumer information, also known as Student Right to Know Information, is available on the Clark College website at www.clark.edu/clark-and-community/about/policies-procedures/consumer_information/index.php.

Information is available in paper format through the Office of the Dean of Student Enrollment and Completion located in Gaiser Hall.

Section F:
Directories and Academic Calendar

SECTION F: Directories and Academic Calendar

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Clark College Board of Trustees

Jack Burkman 2013 – 2018

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 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

Jane Jacobsen 2016-2019

B.A. in Communications, University of Arkansas
Certificate of Excellence, Switzerland Cultural Art Center - Zurich, Switzerland
Master's work in Business Administration, University of Vermont

Currently working with Gramor Development and the City of Vancouver on development of the Columbia Waterfront Park.

Community activities include:

- Founding Executive Director and member of Board of Directors of Confluence
- Board President, Friends of Fort Vancouver
- Member of the Advisory Council with Columbia Land Trust
- Former member of the Columbia River Gorge Commission
- Former member of the Washington State Historical Society

Royce Pollard 2011 – 2016

B.S. in Secondary Education, University of Alabama

During his six terms as mayor of Vancouver, Wash. from 1996-2010, Mr. 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 2015 – 2020

B.A. in Psychology/Education, Central Washington University
M.Ed. in School Administration, Seattle Pacific University
Superintendent Certificate, Washington State University
Certified Superintendent, School Principal, School Psychologist

As a Governor appointee, Ms. Rupley served as co-chair for the Early Learning Advisory Council building the early learning system. The Southwest Washington Child Care Consortium was a milestone for families with young children, providing over 2,000 quality child care slots in 28 centers in Clark County. In 2012-2014, she was chosen by then-Governor Kitzhaber to serve as Oregon's first Early Learning System Director, implementing legislation for early learning and child care investments for children from birth to 6 years. Ms. Rupley is currently an Administra-

tor Consultant, working with superintendents in SW Washington on investigations, student hearings, and issues facing their schools. She is also part of a new consulting firm, Bridges and Rupley, working on education searches.

Community activities include:

- H-RoC Board Member
- Clark College Foundation Board Liaison
- Clark County Skills Center
- Clark County Aging Task Force
- Clark County Planning Commission
- Clark County Aging Task Force
- Chair/Board Member Leadership Clark County

Rekah Strong 2012 – 2017

B.S. Criminal Justice, Portland State University
M.A. Social Work/Administration, Portland State University
Ph.D. Social Work Research, Portland State University in progress

Ms. Strong is currently the Chief of Operations and Equity at the United Way of the Columbia Willamette. She has more than 16 years of experience working in public agencies and developing strategies to improve organizational cultural humility.

Community activities include:

- Board member, We Reign Youth Foundation
- Board member, Partners in Diversity

Clark College Executive Cabinet

William Belden (2010)
Vice President of Student Affairs
B.A. Eastern Washington University
M.Ed. Western Washington University

Tim S. Cook (1997)
Vice President of Instruction
B.S. Western Oregon State College
M.A. Lewis and Clark College
Ed.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 (2003)
President/CEO, Clark College Foundation
B.S. University of Oregon
M.B.A. University of California, Irvine

Chato Hazelbaker (2013)
Chief Information and Communications Officer
B.A. Rocky Mountain College
M.A. Crown College

Leigh A. Kent (2007)
Executive Assistant to the President
A.A., A.S. Holyoke Community College

Robert K. Knight (2004)
President
B.S. United States Military Academy
E.M.B.A. Golden Gate University

Robert D. Williamson (2009)
Vice President of Administrative Services
A.A. Ft. Steilacoom Community College
B.A., M.A. Western Washington University

Kevin Witte (2011)
Associate Vice President of Economic and Community Development
B.S. University of Washington
M.B.A. University of Michigan

Clark College Administration

Eliot Altschul (2015)
Director of Counseling and Health
B.A. Boston University
M.A., Ph.D. California School of Professional Psychology

Rachele Bakic (2012)
Associate Dean of Instructional Operations
B.A. The College of Saint Rose
M.A. Hawaii Pacific University

Michelle M. Bagley (2008)
Dean of Clark Libraries and Academic Success Services
B.A. Minot State University
M.L.S. Emporia State University

Andrew T. Barsotti (2014)
Director of Data Services
B.S. University of Wisconsin
M.S. Washington State University, Pullman

Randall G. Blakely (2009)
Satellite Campus Building Administrator
B.A., M.P.A. Portland State University
B.S., 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

Brittany Brist (2014)
Educational Planner - Professional/Technical
B.S., M.S. Portland State University

Barbara "Dani" Bundy (2014)
Student Affairs ctcLink Operations Manager
B.A. Washington State University

Armetta Burney (2012)
Director of Workforce Education Services
B.S. Southern University
M.B.A. Cardinal Stritch University

Linda S. Calvert (1979)
Associate Director of Running Start
B.A. Washington State University

Christy Campbell (2014)
Assistant Director of Business Services
B.S. Washington State University

Janette Clay (2014)
Transitional Studies Learning Communities Manager
B.A. Lewis and Clark College

Tina Cruz (2015)
Corporate Education Client Support Specialist

Narek Daniyelyan (2014)
Educational Partnerships Manager
B.A. Washington State University

David B. Daugherty (2000)
Director of IT Services
Technology Services
A.A. Lane Community College
B.S., M.S. University of Oregon

Karin Duncker (2014)
Columbia Gorge Educational Program Manager
B.A. Hofstra University

Kelsey DuPere (2013)
Director of Advising Services
B.A. Portland State University
M.S. Portland State University

Dolly England (2015)
Diversity Outreach Program Manager
B.A. The Evergreen State College

Wende Fisher (2015)
Educational Planner - Professional/Technical
A.A.S. Clark College
B.A. Washington State University
M.S. Oregon State University

Kira Freed (2014)
Educational Planner - Health Occupations and Education
B.A., M.S. Western Washington University

Carrie Gallagher (2013)
Executive Assistant Human Resources
A.A. Clackamas Community College
B.A. The University of Portland

Michelle Giovannozzi (2012)
Director of Economic Development and Partnerships
B.A. Princeton University
M.S. Seattle Pacific University

Kael Godwin (2007)
Research and Analytics Professional
B.A., M.A. University of Nevada, Las Vegas

Michelle L. Golder (2007)
Special Projects and Activities Manager
B.S. University of Portland

Sarah K. Gruhler (2010)
Director of Student Life
B.A. Western Washington University
M.Ed. Seattle University

Jason Heron (2011)
Software Application Developer
B.S. University North Texas

Nicole Hopkins (2015)
Transitional Studies Coach
A.A. Clark College

Genevieve Howard (2010)
Dean of Workforce, Career, and Technical Education
B.A., M.A. California State University, Bakersfield

Christopher Jacob (2015)
Assistant Athletics Director
B.S. Nova Southeastern University

Miles V. Jackson (1998)
Dean of Social Sciences and Fine Arts
B.S. Portland State University
M.S. University of Washington

Kate Jacky (2015)
Associate Director of Financial Aid
B.A. Washington State University

Megan Jasurda (2015)
Director of Disability Support Services & ADA Compliance Officer
B.A. University of Wisconsin
M.Ed. Portland State University

Kelly Jones (2015)
Veterans Resource Center Manager
B.S. West Texas A&M University
M.P.A. Washington State University

Colman Joyce (2012)
Interim Associate Director of Enrollment Services & Registrar
A.A. Portland Community College
B.A. Marylhurst University
M.S. Portland State University

Catherine Keane (2014)
Associate Director of Career Services
B.A. Saint Martin's College

Jennifer Kirby (2012)
Project and Workflow Coordinator
B.A. Saint Martin's College

Alex Kirk (2014)
Completion Coach
A.A. Columbia Basin College
B.A. University of Portland
M.A. Concordia University

Monica L. Knowles (1998)
Bookstore Manager
A.A. Brooks College

John Maduta (2010)
Associate Director of Advising-Professional/ Technical Programs
B.A. Western Washington University
M.S. Warner Pacific College

Korene E. Marquez (2013)
Associate Director of Student Tutoring Services
B.A. University of Oregon
M.A. Portland State University

Kimberly A. Marshel (2008)
Associate Director of Credit Articulation
B.S. Portland State University
W.S.C.T. Portland State University
M.S. Portland State University

Maria Masson (2014)
Assistant Director of Human Resources
B.A. University of Washington
B.A. Portland State University
M.A. Lewis and Clark College

Susan Maxwell (2001)
ctcLink Manager
B.A., M.S. University of Wisconsin-Milwaukee

Jeffery Miller (2013)
Environmental Health and Safety Manager
B.S., M.S. Troy University

Cynthia L. Myers (2007)
Director of Nursing
A.D.N. Clark College
B.S.N. Washington State University, Vancouver

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)
Associate Director of Advising Services
A.A. Clark College
B.A. Washington State University, Vancouver
M.S. Warner Pacific College

Eriko Otsuka (2012)
Software Application Integrator and Developer
B.S., M.S. 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

Bonnie Peterson (2014)
Director of Professional & Personal Development
B.S. St. Olaf College
M.B.A. College of St. Thomas

Timothy D. Petta (2013)
Director of Facilities Services
Avis Contractor's License School

Paul J. Raines (2009)
Custodial Services Manager

Tracy B. Reilly-Kelly (1998)
Continuing Education Program Manager
B.A. The Evergreen State College
M.S. Portland State University

Julie L. Robertson (2013)
Research and Continuous Improvement Professional
B.S. Lewis & Clark College
M.S., M.S.W. Portland State University

Matthew J. Rygg (2013)
Dean of Student Success and Retention
B.B.A. Pacific Lutheran University
M.Ed. Oregon State University
Ph.D. Bowling Green State University

Mirranda Saari (2013)
Interim Director of Enrollment Services & Registrar
B.S. Central Washington University
M.Ed. Concordia University

Sabra Sand (2014)
Director of Business Services
B.A. Washington State University

Ashley Schumacher (2014)
Advanced Registered Nurse Practitioner
B.S.N. Oregon Health Sciences University
M.S.N. University of California

Natalie Shank (2014)
Assistant Director of Student Care and Community Standards
B.A. Seattle Pacific University
M.A. Radford University
Ph.D. George Fox University

Cathy Sherick (2015)
Associate Director of Instructional Programming & Innovation
B.S. Eastern Oregon State
M.A. Portland State University

Michael Shingle (2014)
Educational Planner - College Prep & Transfer
B.S., M.S. Oregon State University

Jody Shulnak (2007)
International Student Recruitment & Outreach Manager
B.S. Northern Arizona University
M.S. Portland State University

Lori Silverman (2014)
Director of Grant Development
B.S. University of Wisconsin
M.S. Portland State University

Suzanne C. Smith (2010)
Student Learning Center Program Manager
A.S. Utah Valley State College
B.A. Washington State University, Vancouver

Toccara Stark (2015)
Director of Marketing
B.A. Macalester College
M.A. University of St. Catherine
Ed.D. University of St. Thomas

Julie F. Taylor (2005)
Administrative Secretary

Adriana J. Thomas (2013)
Health eWorkforce Program Manager
B.A. Seattle Pacific University
M.S. Central Connecticut State University

Tasaday Turner (2015)
Associate Director of Advising - College Preparation and Transfer
A.A.S. Clark College
B.A. Washington State University
M.S. Portland State University

Laurel E. Tygart (2013)
Executive Assistant to the Vice President of Instruction
B.A. Western Oregon University

Jacquelynn Vigeon (2015)
Clinical Placement Manager
B.A., M.A. The University of New Mexico

Michele Volk (2015)
Director of Services for Children and Families
A.A. Clark College
B.S. Concordia University

Angela "Ann" Walker (2014)
Director of Athletics
B.A. Northwestern College
M.A. University of Iowa

Brenda Walstead (2015)
Interim Dean of Business and Health Sciences
A.A.S. Portland Community College
B.S. Warner Pacific College
M.S. Portland State University
Ed.D. Walden University

Jane C. Walster (2013)
Director of International Programs
A.A. Seattle Central Community College
B.A., M.S.W. University of Washington

Jim Watkins (2003)
Construction Project Manager
B.A. New College

Vanessa Watkins (2015)
Associate Director of Entry Services
B.S. Oregon State University
M.S. Portland State University

Jim Wilkins-Luton (2015)
Interim Dean of Basic Education, English, Communication and Humanities
B.A Whitworth University
M.A. Gonzaga University

Rashida Willard (2015)
Operations Manager, Administrative Services
A.A.O.D., B.B.A Warner Pacific College

Melissa Williams (2015)
Student Success and Retention Manager
A.A. Clark College
B.A. University of Washington
M.A. Washington State University

Peter G. 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)
Director of Human Resources
A.A.S. Clark College
B.A. Washington State University, Vancouver

Patrick Willis (2014)
Career Advisor
B.A., M.A. George Fox University

Monica Wilson (2014)
Transitional Studies Administrative Manager
B.S. Political Science, Portland State University
B.S. Liberal Studies, Portland State University

Nancy Young (2014)
International Educational Planner
B.A. Hendrix College
M.A. Rutgers University
M.A. University of the Pacific

Clark College Administration

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

Glenn Afflerbaugh (2015)T-T
Dental Hygiene
B.S. Eastern Washington University

Roberto P. Anitori (2013)T-T
Biology
B.S., Ph.D. University of New South Wales

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

Patricia Atkinson (2015)T-T
Economics
B.S. Marist
M.S. Portland State University

Julie A. Austad (2013)T-T
Librarian
B.A. Linfield College
M.L.S. Emporia State University

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. Wittenberg University
M.Ed University of Washington

Barbara Benge (2014)
Business Technology
A.A.S. Clark College

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

Mark E. Bolke (2000)
Biology
B.S., M.S. Portland State University

Veronica P. Brock (1995)
Health & Fitness
B.S. Eastern Washington University
M.S. East Stroudsburg University

Laurie H. Brown (2002)
Nursing
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

Caron Byrd (2015)T-T
Adult Basic Education
A.S. Bakersfield College
B.A. San Francisco State University
M.A California 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

Anthony J. Chennault (2008)
Biology
B.A. University of Puget Sound
M.S. Portland State University

Lindsay Christopher (2014)T-T
English
B.A. Mercyhurst University
M.A. University of Buffalo
Ph.D. University of Denver

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

Adam Coleman (2011)
Computer Technology
A.A.S. Clark College
B.S. Eastern Washington University

Shayna Collins (2012)
Counseling/Human Development
B.A., M.S. Minnesota State University, Mankato

Lisa E. Conway (2003)
Art
B.F.A. University of Michigan
M.F.A. Louisiana State University

Kathryn "Kate" Cook (2014)T-T
Mathematics
B.A. Principia College
M.S. California State University

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

Kushlani de Soyza (2013)T-T
Women's Studies
B.S. Northwestern University
M.Ed. University of Cincinnati
M.A. Portland State University
M.F.A. Oregon 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

Kathryn "Katie" Donovan (2011)
Nursing
B.S.N. Marquette University
M.N. Washington State 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

Mary E. Evens (2000)
Business Technology
B.A. Central Washington University
M.A. Pepperdine University

Nadine L. Fattaleh-Diggs (2002)
Chemistry-General
B.A. Scripps College
M.S. Carnegie Mellon University

Dee Anne Finken (2013)T-T
Journalism
B.A. California State University, Sacramento
B.A. Washington State University
M.F.A. Portland State University

Anita L. Fisher (1990)
History & Political Science
B.A., M.A. University of Portland
Ph.D. University of Oregon

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

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
M.S.N. University of Portland

Michael A. Godson (1995)
Automotive Technology
A.A.S. Clark College
A.S.E. Master Automotive Technician

Deena M. Godwin (2008)
Communications Studies
B.A. Dana College
M.S. South Dakota State University

Donald M. Gonser (1994)
Diesel
A.S. Oregon Institute of Technology
A.S.E. Master Medium/Heavy Truck Technician

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.L.S. Emporia State University

Garrett C. Gregor (2002)
Mathematics
B.S. University of Utah
M.S. Humboldt State University

Gothard C. Grey (2004)
Physics
B.S. (Physics) University of Utah
B.S. (Chemistry) University of Utah
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

Adnan A. Hamideh (2002)
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

Deborah L. Hendrickson (2008)
Nursing
B.A., B.S. Winona State University
M.P.H. Loma Linda University

Rebecca Herman (2015)T-T
Dental Hygiene
A.S. Clark College
B.S., M.S. Concordia University

Grant N. Hottle (2013)T-T
Art
B.F.A. University of Oklahoma
M.F.A. University of Oregon

Garrett L. Hoyt (2013)T-T
Health and Physical Education
B.S., PhD. Brigham Young University
M.S. Colorado 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

Richard H. Inouye (2007)
Music
B.M.E. University of Northern Colorado
M.M. University of Colorado, Boulder

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)T-T
Nursing
B.S. Saint Martin's University
B.S.N. Seattle University
M.S. Grand Canyon University

Andrew B. Johnson (2013)T-T
Business and Technology
B.A. George Fox University
M.A. University of Phoenix

Catherine E. Johnston (2007)
English as a Second Language
B.A. DePaul University
M.A. University of San Francisco

Yusufu Kamara (2015)T-T
Economics
B.S. University of Sierra Leone
M.A., Ph.D. Univeristy of Kansas

Sally J. Keely (1996)
Mathematics
B.S., M.S. Portland State University

Izad Khormaee (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

Jenefer A. King (2009)
Medical Radiography
Radiography Diploma, Christchurch School of Radiography, New Zealand

Raymond T. Korpi (2000)
English
B.S., M.A. University of Nebraska
Ph.D. Washington State University

David L. Kosloski (1998)
Communication Studies
Speech B.A. Georgia State University, Atlanta
M.A. Central Michigan University

Christopher R. Lewis (1999)
Electronics
A.A.S., B.A.S. ITT Technical Institute
M.B.A. City University of Seattle

Dennis J. Lloyd (2000)
Diesel
A.A.S. Clark College

Kenneth S. Luchini (2013)T-T
Mechatronics
A.S. Diablo Valley College
B.S. California State University, Chico

Donald Ludwig (2015)T-T
Sociology
A.A Spokane Community College
B.A. Whitworth College
M.S. Princeton Theological Seminary
M.S. Rutgers University
Ph.D. International University of Graduate Studies

Michael Ludwig (2014)T-T
Dental Hygiene
A.A.S. Clark College
B.S. Eastern Washington University

Luanne M. Lundberg (1997)
Adult Basic Education
B.A., M.Ed. Western Washington University

Sarah M. Luther (2013)T-T
Mathematics
B.A., M.A. Lewis and Clark College
M.S. Texas A&M University

Robert M. MacKay (1983)
Physics
B.A. Chico State University
M.S. Portland State University
Ph.D. Oregon Graduate Institute of Science and Technology

Kitty J. Mackey (2001)
Librarian
B.A. University of Montana
M.L.S. Indiana University

Carole L. Mackewich (1992)
Counselor
B.A. Bloomsberg State University
M.Ed. University of Washington

Michelle D. Mallory (2008)
Family Life/Early Childhood Education
B.S. Western Oregon State College
M.S. Portland State University

Helen Martin (2007)
Business Technology
Doctorandus, Leiden University
M.B.A. Georgia State University

Rebecca L. Martin (2000)
Biology
B.A. Vassar College
M.A. Antioch University
M.S. Washington State University

Priscila E. Martins-Read (1990)
English as a Non-Native Language
B.A. University of Washington
M.Ed. Oregon State University

Mika Maruyama (2013)T-T
Psychology
B.A. Utah State University
M.S., Ph.D. Portland State University

Angie Marks (2009)
Nursing
B.S.N., M.N. Washington State University

Kanchan Mathur (2005)
Mathematics
B.A. Delhi University
M.S., Ph.D. Indian Institute of Technology

Heather J. McAfee (2013)T-T
Geography
B.A. University of Colorado, Colorado Springs
M.A. University of Oregon

Jody McQuillan (2007)
Adult Basic Education
A.S. Madonna University
B.S. Central Michigan University
M.S.W. Portland State University

Brian McVay (2014)T-T
Welding
Journeyman Ironworker Certification

Natalie R. Miles (2013)T-T
Adult Basic Education
B.S., M.S. Valley City 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

Laura Nagel (2015)T-T
Reference and Instruction Librarian
B.A. Pacific Lutheran University
M.A. University of Wisconsin

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

Alexis Nelson (2014)T-T
English
B.A. University of California
M.A. Portland State 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
Ed.M. Oregon State University
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

Kathleen M. Perillo (1999)
Biology
B.A. University of Delaware
M.S. University of New Haven

Tobias Peterson (2014)T-T
English
B.A. Texas State University
M.A. George Mason University

Mary Ellen Pierce (2014)T-T
Nursing
B.S.N. University of Alaska
M.S.N. University of Phoenix

Joseph R. Pitkin (2000)
English
B.A. Utah State University
M.A. New Mexico State University
M.S. Washington State University

Kristl 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

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Nursing
A.S. Portland Community College
A.S.N. Clark College
B.S.N., M.N. Washington State University

Heidi M. Rich (1997)
English
B.A. Lewis and Clark College
M.A. University of Iowa
Ph.D. University of Washington

Leslie J. Rivera (1997)
English as a Second Language
B.A. University of Portland
M.A. San Francisco State University

Gail R. Robinson (1993)
English
B.A. Miami University, Ohio
M.A. Portland State University

Marcia R. Roi (2000)
Chemical Dependency
B.S., M.S. Oklahoma State University
Ph.D. Oregon State University

Bevyn Rowland (2011)
Counseling/Human Development
B. A. University of Portland
M.A., PsyD. 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

Jack Sande (2014)T-T
Network Technology
A.A. Lower Columbia College
B.A. Seattle Pacific University
M.A. Trinity International University

Erin K. Schoenlein (2013)T-T
Adult Basic Education
B.B.A., M.A.T. University of Portland

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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

Nicoleta Sharp (2008)
Physics
B.S., M.S. Universitatea Alexandru Ioan Cuza

Dawn M.U. Shults (2009)
Pharmacy
C.Ph.T. Clark College

Gerard M. Smith (1991)
English
B.S. Bowling Green State University
M.A. University of Toledo
Ph.D. Bowling Green State University

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.P.H. Portland State University

Senseney 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
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

Kristina Taylor (2010)
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

Sally A. Tomlinson (2007)
Art History
B.A. University of California, Berkeley
M.A. University of Victoria, Canada
Ph.D. University of North Carolina

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. Ubiergo (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

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
Ed.D. Walden University

Kathryn S. Washburne (2008)
Adult Basic Education
B.A. California Polytechnic State University
M.A. United States International University

Bruce F. Wells (2000)
Machine Technology
A.G.S. Clackamas Community College

Robert Weston (2015)T-T
Mathematics
B.S. Oregon State University
M.S. The City College of New York

Caleb N. White (2013)T-T
Welding
A.O.S. Universal Technical Institute

Lora Whitfield (2014)T-T
Early Childhood Education
A.A.S. Clark College
B.A., M.A. Pacific Oaks College

Alan Wiest (2012)T-T
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)
English
B.A. Whitworth University
M.A. Gonzaga University

Sandra E. Woodward (1988)
English
B.A. Park College
M.A. University of Kansas

Tess Yevka (2015)T-T
Psychology
B.S. Marylhurst University
M.S. Portland State University

Joan Zoellner (2009)
Mathematics
B.A. Humboldt State University
M.A. Indiana University

Tenure Track is indicated by T-T

Clark College Foundation

Vivian Cheadle Manning, CFRE (2010)
Director of Giving & Alumni Relations
B.A. Southern Methodist University
C.F.M. IUPUI/School of Philanthropy

Lisa Gibert, CPA, CFRE (1998)
Clark College Foundation President/CEO
B.S. University of Oregon
M.B.A. University of California, Irvine

P. Constance Grecco (2013)
Development Officer
B.S. Washington State University

Karen Hagen (1994)
Director of Advancement Services

Rhonda Morin (2012)
Director of Communications
B.S. Journalism, University of Maine
M.L.S. Eastern Michigan University
E.M.T. Maine Community College

Daniel Rogers, CPA (2010)
Chief Financial Officer
B.A. Washington State University

Shirley Schwartz (1999)
Scholarship Program/Stewardship Manager
A.A., B.A. West Coast Christian College

Clark College Phone Directories

Alphabetical Quick Dial Phone List: http://www.clark.edu/directories/quick-dial/index.php

Employee Directory Phone List: https://www.clark.edu/employee-directory/phone-list/

ASCC Officers Phone List: http://www.clark.edu/directories/quick-dial/ascc.php

Clark College at Columbia Tech Center (CTC) Phone List: http://www.clark.edu/directories/quick-dial/ctc.php

Fax Numbers Phone List: http://www.clark.edu/directories/quick-dial/fax.php

Clark College at Washington State University Vancouver (WSUV) Phone List: http://www.clark.edu/directories/quick-dial/wsuv.php

Clark College 2016-2017 Academic Calendar

SUMMER QUARTER 2016

July 4th Holiday .....July 4 (M)
Classes Begin ..... July 5 (T)
End of 1st 4-week session.....July 29 (F)
2nd 4-week session begins..... August 1 (M)
Last day of 2nd 4-week session.....August 26 (F)
Last day of 8-week session .....August 26 (F)

FALL QUARTER 2016

Labor Day Holiday.....September 5 (M)
Classes Begin.....September 19 (M)
Faculty Workday (no classes).....October 7 (F)
Veteran's Holiday .....November 11 (F)
Faculty Workday (no classes).....November 23 (W)
Thanksgiving Holiday.....November 24-25 (Th-F)
Last Day of Classes ..... December 2 (F)
Final Exams December.....5-8 (M-T-W-Th)
Faculty Workday ..... December 9 (F)
Faculty Workday ..... December 12 (M)
Christmas Holidays ..... December 23-26 (F-M)

WINTER QUARTER 2017

New Year's Day ..... January 2 (M)
Classes Begin.....January 9 (M)
Martin Luther King Holiday..... January 16 (M)
Presidents Day Holiday .....February 20 (M)
Last Day of Classes .....March 17 (F)
Final Exams .....March 20-23 (M-T-W-Th)
Faculty Workday .....March 24 (F)
Faculty Workday .....March 27 (M)

SPRING QUARTER 2017

Classes Begin ..... April 10 (M)
Memorial Day Holiday..... May 29 (M)
Last Day of Classes .....June 16 (F)
Final Exams .....June 19-22 (M-T-W-Th)
Graduation .....June 22 (Th)
Faculty Workday ..... June 32 (F)
Faculty Workday .....June 26 (M)