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2018-2019 Catalog

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

Locations

Main Campus

1933 Fort Vancouver Way
Vancouver, WA 98663

Columbia Tech Center

18700 SE Mill Plain Blvd.
Vancouver, WA 98683

Clark College at WSU Vancouver

14204 NE Salmon Creek Ave.
Vancouver, WA 98686

Disclaimer

The information in this catalog is effective as of summer term 2018. 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.

ACADEMIC PLANS

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

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) (p. 8)
- Accounting (AAS) (p. 8)

Accounting Clerk (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 106 | APPLIED OFFICE ENGLISH | 3-5 |
| | or ENGL&101 ENGLISH COMPOSITION I | |
| Subtotal | | 3-5 |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| Subtotal | | 3 |
| Business Core Courses | | |
| BUS 028 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS& 101 | INTRODUCTION TO BUSINESS | 5 |
| BTEC 100 | KEYBOARDING | 3 |
| BTEC 150 | COMPUTER BUSINESS APPLICATIONS | 5 |
| ECON 101 | INTRODUCTION TO ECONOMICS | 3 |
| MGMT 101 | PRINCIPLES OF MANAGEMENT | 3 |
| Major Area Requirements | | |
| BUS 029 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS 036 | ACCOUNTING APPLICATIONS | 3 |
| BUS 130 | COMPUTERIZED ACCOUNTING | 3 |
| BUS 199 | COOPERATIVE WORK EXPERIENCE ¹ | 1-5 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |

| | | |
|---------------------|---------------------------------|-------|
| BTEC 170 | EXCEL FOR BUSINESS ² | 3 |
| CMST&220 | PUBLIC SPEAKING | 5 |
| Total Credits/Units | | 56-58 |

¹ Minimum of 5 credits/units must be earned in Cooperative Work Experience.

² 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 Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/505A/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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses manually as well as using computer systems.
- Perform all steps of the accounting cycle, using both general and specialized journals.
- Accurately create and maintain payroll records required under federal and state laws.

Accounting (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits.

| Code | Title | Credits/ Units |
|--|---------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| CMST&220 | PUBLIC SPEAKING | 5 |
| | or CMST&230 SMALL GROUP COMMUNICATION | |
| Subtotal | | 5 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| <i>Human Relations</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Social Sciences</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Computational Skills</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| Major Area Requirements | | |
| ACCT&201 | PRINCIPLES OF ACCOUNTING I | 5 |
| ACCT&202 | PRINCIPLES OF ACCOUNTING II | 5 |
| ACCT&203 | PRINCIPLES OF ACCOUNTING III | 5 |
| BUS 130 | COMPUTERIZED ACCOUNTING | 3 |
| BUS& 201 | BUSINESS LAW | 5 |
| BUS 203 | DESCRIPTIVE STATISTICS | 3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 170 | EXCEL FOR BUSINESS | 3 |
| Additional Major Area Electives | | |
| Select a minimum of three to five additional credits/units from the following areas: | | 3-5 |
| Accounting (ACCT) (p. 143) | | |
| Business Administration (BUS) (p. 163) | | |
| Economics (ECON) (p. 201) | | |
| Supervisory Management (MGMT) (p. 234) | | |
| Computer Applications (BTEC) (p. 165) ¹ | | |
| Complete as many General Elective (GE) courses as needed to reach the total of 90 credits required by the degree | | |
| Total Credits/Units | | 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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses manually as well as using computer systems.
- 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.

¹ Six credit/unit maximum.

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) (p. 10)
- Addiction Counselor Education (AAS) (p. 11)
- Addiction Counselor Education (AA) (p. 11)

Addiction Counselor Education (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|-----------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |

| | | |
|--------------------------------|--|-------|
| PSYC&100 | GENERAL PSYCHOLOGY | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| ACED 101 | SURVEY OF ADDICTIONOLOGY ¹ | 3-5 |
| or HSSA&101 | INTRO TO ADDICTIVE DRUGS | |
| ACED 122 | INTRODUCTION TO ADDICTIONS COUNSELING SKILLS | 3 |
| ACED 125 | GROUP COUNSELING IN ADDICTIONS | 3 |
| ACED 132 | INTRODUCTION TO COUNSELING FAMILY MEMBERS | 3 |
| ACED 136 | LAW AND ETHICS IN ADDICTIONS COUNSELING | 3 |
| ACED 137 | ADDICTIONS AND MENTAL ILLNESS | 3 |
| ACED 138 | PREVENTION AND EDUCATION IN THE COMMUNITY | 3 |
| ACED 160 | PHARMACOLOGY OF DRUGS OF ABUSE | 3 |
| ACED 164 | ADOLESCENT ADDICTION ASSESSMENT & TREATMENT | 3 |
| ACED 170 | AIR- AND BLOOD-BORNE PATHOGENS | 3 |
| ACED 201 | THEORIES OF COUNSELING ¹ | 3 |
| ACED 202 | MULTI-CULTURAL ADDICTIONS COUNSELING | 3 |
| ACED 203 | CASE MANAGEMENT IN ADDICTION MEDICINE | 3 |
| ACED 205 | ADVANCED TECHNIQUES FOR ADDICTION COUNSEL | 3 |
| PSYC&200 | LIFESPAN PSYCHOLOGY | 5 |
| Total Credits/Units | | 60-62 |

¹ For non-majors also.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/437B/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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (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.

- 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.

Addiction Counselor Education (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|-------------------------------|---|-------------------|
| Summer Term (Optional) | | |
| ACED 132 | INTRODUCTION TO COUNSELING FAMILY MEMBERS | 3 |
| ACED 136 | LAW AND ETHICS IN ADDICTIONS COUNSELING | 3 |
| ACED 170 | AIR- AND BLOOD-BORNE PATHOGENS | 3 |

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Course Options (p. 336) | | |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | |
| <i>Computational Skills</i> | | |
| Course Options (p. 337) | | |
| <i>Human Relations</i> | | |
| PSYC&100 | GENERAL PSYCHOLOGY ¹ | 5 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) | | |
| Major Area Requirements | | |
| ACED 101 | SURVEY OF ADDICTIONOLOGY ² | 3-5 |
| or HSSA&101 | INTRO TO ADDICTIVE DRUGS | |
| ACED 122 | INTRODUCTION TO ADDICTIONS COUNSELING SKILLS | 3 |
| ACED 125 | GROUP COUNSELING IN ADDICTIONS | 3 |
| ACED 132 | INTRODUCTION TO COUNSELING FAMILY MEMBERS | 3 |
| ACED 136 | LAW AND ETHICS IN ADDICTIONS COUNSELING | 3 |
| ACED 137 | ADDICTIONS AND MENTAL ILLNESS | 3 |
| ACED 138 | PREVENTION AND EDUCATION IN THE COMMUNITY | 3 |
| ACED 160 | PHARMACOLOGY OF DRUGS OF ABUSE | 3 |
| ACED 164 | ADOLESCENT ADDICTION ASSESSMENT & TREATMENT | 3 |
| ACED 170 | AIR- AND BLOOD-BORNE PATHOGENS | 3 |
| ACED 201 | THEORIES OF COUNSELING ² | 3 |

| | | |
|--|---|-------|
| ACED 202 | MULTI-CULTURAL ADDICTIONS COUNSELING | 3 |
| ACED 203 | CASE MANAGEMENT IN ADDICTION MEDICINE | 3 |
| ACED 205 | ADVANCED TECHNIQUES FOR ADDICTION COUNSEL | 3 |
| ACED 210 & ACED 211 | FIELD PLACEMENT I and FIELD PLACEMENT II | 12 |
| PSYC&200 | LIFESPAN PSYCHOLOGY ¹ | 5 |
| Additional Major Area Electives | | |
| Select one from the following: | | |
| ENGL&102 | ENGLISH COMPOSITION II | |
| ENGL&235 | TECHNICAL WRITING | |
| HDEV Coursework | | |
| Total Credits/Units | | |
| | | 91-96 |

¹ May count for both Human Relations or Social Science distribution.

² For non-majors also.

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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete Washington State Chemical Dependency Professional exam.
- Treat substance abuse clients in multiple settings including individual and group counseling situations.

Addiction Counselor Education (AA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Oral Communication</i> | | |
| Course Options (p. 326) | | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| Course Options (p. 326) | | 5 |
| Subtotal | | 5 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 326) ¹ | | 15 |
| Subtotal | | 15 |
| <i>Social Sciences</i> | | |
| PSYC&100 | GENERAL PSYCHOLOGY | 5 |
| Select 10 additional credits/units from two other departments (p. 327) | | 10 |
| Subtotal | | 15 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 327) ² | | 15 |
| Subtotal | | 15 |
| Major Area Requirements | | |
| ACED 101 | SURVEY OF ADDICTIONOLOGY | 3-5 |
| or HSSA&101 | INTRO TO ADDICTIVE DRUGS | |
| ACED 122 | INTRODUCTION TO ADDICTIONS COUNSELING SKILLS | 3 |
| ACED 125 | GROUP COUNSELING IN ADDICTIONS | 3 |
| ACED 136 | LAW AND ETHICS IN ADDICTIONS COUNSELING | 3 |
| ACED 160 | PHARMACOLOGY OF DRUGS OF ABUSE | 3 |
| ACED 201 | THEORIES OF COUNSELING | 3 |
| PSYC&200 | LIFESPAN PSYCHOLOGY ³ | 5 |
| Additional Specified Electives | | 4 |
| Total Credits/Units | | 90-92 |

¹ Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than 10 credits/units from any one subject area. A maximum of five (5) credits/units of "B" list coursework may be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

² Must include a lab science.

³ For non-majors also.

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

Program Outcomes

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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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.
- 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.

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) (p. 13)
- Office Assistant (CP) (p. 13)
- Administrative Assistant AAT with Concentration in General Office (p. 14)
- Administrative Assistant AAT with Concentration in Medical Office (p. 15)
- Office Management (AAT) (p. 16)

Front Office Assistant (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--------------------------------|---|-------------------|
| Major Area Requirements | | |
| BTEC 107 | BUSINESS ENGLISH | 5 |
| Select one from the following: | | 1-3 |
| BTEC 101 | BEGINNING KEYBOARDING (Three credits/units required) ¹ | |
| BTEC 103 | REFRESHER KEYBOARDING (Three credits/units required) ¹ | |
| BTEC 120 | INTRODUCTION TO WORD | 3 |

| | | |
|---------------------|--|----|
| BTEC 131 | FILING AND RECORDS MANAGEMENT | 3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| BTEC 114 | INTRODUCTION TO OUTLOOK | 1 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| Total Credits/Units | | 27 |

¹ Register for BTEC 100.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/553F/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:

- Compose, produce, and edit business documents utilizing proper grammar, spelling, word usage, and sentence structure.
- Create and maintain accurate filing systems (alpha, numeric, subject, and geographic) with paper and electronic records.
- Professionally employ appropriate interpersonal skills with sensitivity to ethnic and cultural differences in dealing with customers or fellow employees.
- Use computational skills to solve business problems.

Office Assistant (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 107 | BUSINESS ENGLISH | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| or CMST&230 | SMALL GROUP COMMUNICATION | |
| Subtotal | | 8 |

| Core Requirements | | |
|--|--|-------|
| BTEC 100 | KEYBOARDING ^{1,2} | 1-3 |
| BTEC 114 | INTRODUCTION TO OUTLOOK | 1 |
| BTEC 120 | INTRODUCTION TO WORD | 3 |
| BTEC 131 | FILING AND RECORDS MANAGEMENT | 3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| Select one from the following: | | 2 |
| BTEC 140 | BUSINESS TECHNOLOGY SEMINAR | |
| BTEC 141 | BUSINESS TECHNOLOGY SEMINAR | |
| BTEC 143 | BUSINESS TECHNOLOGY SEMINAR | |
| BTEC 145 | BUSINESS TECHNOLOGY SEMINAR | |
| BTEC 199 | COOPERATIVE WORK EXPERIENCE ² | 1-3 |
| Subtotal | | 19 |
| Concentration Requirements | | |
| Complete one Concentration Course List below | | 9-16 |
| Subtotal | | 9-16 |
| Total Credits/Units | | 46-53 |

¹ BTEC 101 or BTEC 103 is required for this program; once registered for BTEC 100 students will be placed in the appropriate class as skill indicates.

² Three credits/units required.

³ BTEC 147 may be substituted for your first term of Seminar.

General Office Administration Concentration Course List

| Code | Title | Credits/ Units |
|---------------------|----------------------------------|-------------------|
| BTEC 165 | POWERPOINT PRESENTATION | 3 |
| BTEC 180 | ACCESS FOR BUSINESS | 3 |
| BTEC 201 | DOCUMENT FORMATTING ¹ | 1-3 |
| Total Credits/Units | | 9 |

¹ Three credits/units required.

Medical Office Administration Concentration Course List

| Code | Title | Credits/ Units |
|---------------------|---|-------------------|
| BMED 110 | MEDICAL TERMINOLOGY I | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II | 3 |
| BMED 129 | MEDICAL REIMBURSEMENT | 5 |
| BMED 138 | LEGAL ASPECTS OF THE MEDICAL OFFICE | 2 |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| Total Credits/Units | | 16 |

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/559A/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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- Produce and edit business documents implementing proper grammar, spelling, word usage, and sentence structure.

Administrative Assistant AAT with Concentration in General Office

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--------------------------------|--|-------------------|
| General Education Requirements | | |
| Communication Skills | | |
| BTEC 107 | BUSINESS ENGLISH | 5 |
| Computational Skills | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| Human Relations | | |
| CMST&210 or CMST&230 | INTERPERSONAL COMMUNICATION SMALL GROUP COMMUNICATION | 5 |

| Code | Title | Credits/ Units |
|---|--|-------------------|
| BTEC Core Requirements | | |
| BTEC 101 or BTEC 103 | BEGINNING KEYBOARDING REFRESHER KEYBOARDING | 3 |
| BTEC 114 | INTRODUCTION TO OUTLOOK | 1 |
| BTEC 120 | INTRODUCTION TO WORD | 3 |
| BTEC 131 | FILING AND RECORDS MANAGEMENT | 3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 199 | COOPERATIVE WORK EXPERIENCE ¹ | 3 |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| BTEC 211 | ADMINISTRATIVE PROCEDURES | 5 |
| <i>Take 4 credits from the following:</i> | | |
| BTEC 140 | BUSINESS TECHNOLOGY SEMINAR | 2 |
| BTEC 141 | BUSINESS TECHNOLOGY SEMINAR | 2 |
| BTEC 143 | BUSINESS TECHNOLOGY SEMINAR | 2 |
| BTEC 145 | BUSINESS TECHNOLOGY SEMINAR | 2 |

| Code | Title | Credits/ Units |
|--|---|-------------------|
| General Office Concentration | | |
| BTEC 155 | INTRODUCTION TO OFFICE PUBLISHING TOOLS | 3 |
| BTEC 165 | POWERPOINT PRESENTATION | 3 |
| BTEC 170 | EXCEL FOR BUSINESS | 3 |
| BTEC 180 | ACCESS FOR BUSINESS | 3 |
| BTEC 201 | DOCUMENT FORMATTING | 3 |
| BTEC 203 | SPEED AND ACCURACY BUILDING | 3 |
| BUS& 101 | INTRODUCTION TO BUSINESS | 5 |
| Complete a minimum of 17 credits from the following | | 17 |
| BUS 028 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS 029 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS 110 | CUSTOMER SERVICE | 3 |
| BUS& 201 | BUSINESS LAW | 5 |
| ECON 101 | INTRODUCTION TO ECONOMICS | 3 |
| MGMT 101 | PRINCIPLES OF MANAGEMENT | 3 |
| Total Credits/Units | | 90 |

¹ BTEC 199 requires 6 credits total to complete the degree

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
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)

Administrative Assistant AAT with Concentration in Medical Office

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 107 | BUSINESS ENGLISH | 5 |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| <i>Human Relations</i> | | |
| CMST&210 or CMST&230 | INTERPERSONAL COMMUNICATION SMALL GROUP COMMUNICATION | 5 |
| BTEC Core Requirements | | |
| BTEC 101 or BTEC 103 | BEGINNING KEYBOARDING REFRESHER KEYBOARDING | 3 |
| BTEC 114 | INTRODUCTION TO OUTLOOK | 1 |
| BTEC 120 | INTRODUCTION TO WORD | 3 |
| BTEC 131 | FILING AND RECORDS MANAGEMENT | 3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 140 or BTEC 141 or BTEC 143 or BTEC 145 | BUSINESS TECHNOLOGY SEMINAR BUSINESS TECHNOLOGY SEMINAR BUSINESS TECHNOLOGY SEMINAR BUSINESS TECHNOLOGY SEMINAR | 2 |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| BTEC 199 | COOPERATIVE WORK EXPERIENCE | 3 |

| | | |
|------------------------------|---|-----------|
| BTEC 211 | ADMINISTRATIVE PROCEDURES | 5 |
| Medical Concentration | | |
| BMED 105 | STATISTICS FOR HEALTH CARE PROFESSIONALS | 2 |
| BMED 110 | MEDICAL TERMINOLOGY I | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II | 3 |
| BMED 112 | INTRODUCTION TO PATHOPHYSIOLOGY | 5 |
| BMED 129 | MEDICAL REIMBURSEMENT | 5 |
| BMED 130 | MEDICAL CODING - CPT/HCPCS | 4 |
| BMED 132 | MEDICAL CODING ICD-9-CM/ICD-10 | 5 |
| BMED 133 | INTERMEDIATE MEDICAL CODING | 5 |
| BMED 138 | LEGAL ASPECTS OF THE MEDICAL OFFICE | 2 |
| BMED 140 | LEGAL ASPECTS OF HEALTH INFORMATION | 2 |
| BMED 222 | HEALTH INFORMATION PROCEDURES | 5 |
| BTEC 207 | INTRODUCTION TO SHAREPOINT | 3 |
| BUS 110 | CUSTOMER SERVICE | 3 |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HEOC 130 | PHARMACOLOGY FOR HEALTH ASSISTANTS | 3 |
| Total Credits/Units | | 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:

- 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
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)

Office Management (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/Units |
|---|---|---------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| BUS 211 | BUSINESS COMMUNICATIONS | 3 |
| <i>Computational Skills</i> | | |
| MATH&146 | INTRODUCTION TO STATISTICS | 5 |
| <i>Human Relations</i> | | |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| or CMST&230 | SMALL GROUP COMMUNICATION | |
| Major Area Requirements | | |
| BTEC 107 | BUSINESS ENGLISH | 5 |
| BTEC 120 | INTRODUCTION TO WORD | 3 |
| BTEC 155 | INTRODUCTION TO OFFICE PUBLISHING TOOLS | 3 |
| BTEC 165 | POWERPOINT PRESENTATION | 3 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| BTEC 170 | EXCEL FOR BUSINESS | 3 |
| BTEC 180 | ACCESS FOR BUSINESS | 3 |
| BTEC 195 | E-COMMERCE: INTRO TO BUSINESS ON THE WEB | 3 |
| BTEC 211 | ADMINISTRATIVE PROCEDURES | 5 |
| MGMT 101 | PRINCIPLES OF MANAGEMENT | 3 |
| MGMT 126 | PROJECT MANAGEMENT | 4 |
| MGMT 128 | HUMAN RESOURCES MANAGEMENT | 3 |
| MGMT 199 | COOPERATIVE WORK EXPERIENCE | 1-5 |
| BUS& 101 | INTRODUCTION TO BUSINESS | 5 |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| ACCT&201 | PRINCIPLES OF ACCOUNTING I | 5 |
| ACCT&202 | PRINCIPLES OF ACCOUNTING II | 5 |
| BUS 130 | COMPUTERIZED ACCOUNTING | 3 |
| Electives | | |
| Select a minimum of five(5) credits/units from the following: | | 5 |
| MGMT 103 | APPLIED MANAGEMENT SKILLS | |
| MGMT 106 | MOTIVATION AND PERFORMANCE | |
| MGMT 107 | SUPERVISORY COMMUNICATION I, WRITTEN | |
| MGMT 110 | CREATIVE PROBLEM SOLVING | |
| MGMT 112 | CONFLICT MANAGEMENT | |
| MGMT 120 | SUPERVISOR AS A TRAINER COACH | |
| MGMT 122 | LEADERSHIP PRINCIPLES | |
| MGMT 125 | TEAM BUILDING AND GROUP BEHAVIOR (strongly recommended) | |
| MGMT 132 | LEGAL ISSUES IN EMPLOYEE RELATIONS (strongly recommended) | |
| MGMT 133 | PRODUCTION AND OPERATIONS MANAGEMENT | |
| BUS 280 | SELECTED TOPICS | |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.

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.

- Graphic Design (AFA) (p. 18)
- Studio Art (AFA) (p. 19)
- Studio Arts (AADTA) (p. 21)

Graphic Design (AFA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|-----------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| Select one from the following: | | 5 |
| MATH&107 | MATH IN SOCIETY | |

| | | |
|--|---|-----|
| Select five credits/untils from any college level Math class (p. 326) | | |
| Subtotal | | 5 |
| <i>Health & Physical Education</i> | | |
| Select one from the following: | | 3 |
| HPE 258 | FITNESS-WELLNESS | |
| HPE 266 | MIND BODY HEALTH | |
| Select two credits/units of Health and one credit/unit of Physical Education (p. 326) | | |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Select five credits/units from an A-list distribution(s) department other than Art (p. 326) ¹ | | 5 |
| Subtotal | | 5 |
| <i>Social Sciences</i> | | |
| Select one from the following: | | 5 |
| CMST&230 | SMALL GROUP COMMUNICATION | |
| Or select five credits/units from any Social Science distribution (p. 327) | | |
| Subtotal | | 5 |
| <i>Natural Sciences</i> | | |
| Select five credits/units from a lab science (p. 327) | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| <i>Fine Arts Foundations</i> | | |
| ART 103 | DRAWING I | 3 |
| ART 110 | CREATIVITY AND CONCEPT | 3 |
| ART 115 | TWO-DIMENSIONAL DESIGN | 4 |
| ART 116 | COLOR THEORY AND DESIGN | 4 |
| ART 118 | TIME-BASED ART AND DESIGN | 4 |
| ART 145 | DIGITAL PHOTOGRAPHY I | 3 |
| Select one from the following: | | 4 |
| ART 104 | OBSERVATIONAL DRAWING | |
| ART 105 | CONTEMPORARY DRAWING PRACTICES | |
| ART 203 | THE HUMAN FIGURE I | |
| <i>Computer Graphics Technology</i> | | |
| CGT 101 | PHOTOSHOP RASTER GRAPHICS | 4 |
| CGT 102 | ILLUSTRATOR VECTOR GRAPHICS | 4 |
| CGT 103 | INDESIGN PAGE LAYOUT | 4 |
| <i>Graphic Design</i> | | |
| ART 172 | GRAPHIC DESIGN EXPLORATION | 3 |
| ART 173 | GRAPHIC DESIGN STUDIO I | 4 |
| ART 174 | TYPOGRAPHY | 4 |
| ART 208 | DIGITAL ILLUSTRATION | 4 |
| ART 215 | PORTFOLIO DEVELOPMENT | 3 |
| ART 270 | PUBLICATION PRODUCTION (Three credits/units required) | 1-9 |
| ART 271 | PUBLICATION DESIGN | 4 |
| ART 272 | GRAPHIC DESIGN HISTORY | 5 |
| ART 273 | GRAPHIC DESIGN STUDIO II | 4 |
| Select one from the following: | | 1-5 |
| CGT 214 | PROFESSIONAL PRACTICES | |
| CGT 240 | CAPSTONE PRACTICUM | |

CGT 199 COOPERATIVE WORK EXPERIENCE

Total Credits/Units 98-110

¹ World Languages 121, 122 or 123 recommended if you do not have two 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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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)
- Apply communication theory to demonstrate effective oral communication skills.(GE)

Studio Art (AFA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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 and also requires the student to specialize in a particular studio area (painting, drawing, photography, ceramics, or metals). Students will document a body of artwork in the culminating ART 215 Portfolio class and create related written materials 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 upper-level course work in their major area. 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.

| Code | Title | Credits/ Units |
|--|---------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| Course Options (p. 326) | | 5 |
| Subtotal | | 5 |
| <i>Social Sciences</i> | | |
| Course Options (p. 327) | | 5 |
| Subtotal | | 5 |
| <i>Humanities</i> | | |
| Select five credits/units from the AA distribution list of Humanities A-list classes (p. 326) ¹ | | 5 |
| Subtotal | | 5 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 327) ² | | 5 |
| Subtotal | | 5 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 326) | | 3 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| <i>Fine Art Foundations</i> | | |
| ART 103 | DRAWING I | 3 |
| ART 110 | CREATIVITY AND CONCEPT | 3 |
| ART 115 | TWO-DIMENSIONAL DESIGN | 4 |
| ART 116 | COLOR THEORY AND DESIGN | 4 |
| ART 117 | THREE-DIMENSIONAL DESIGN | 4 |
| ART 118 | TIME-BASED ART AND DESIGN | 4 |
| ART 104 | OBSERVATIONAL DRAWING | 4 |
| or ART 203 | THE HUMAN FIGURE I | |
| ART 215 | PORTFOLIO DEVELOPMENT | 3 |
| <i>Art History</i> | | |
| Select two from List A and one more from either list A or B: | | 15 |

| List A: | | |
|---|--------------------------------------|----|
| ART 220 | ART HISTORY: ANCIENT TO LATE ANTIQUE | |
| ART 221 | ART HISTORY: MEDIEVAL-RENAISSANCE | |
| ART 222 | ART HISTORY: BAROQUE-MODERN | |
| ART 223 | ART IN THE TWENTIETH CENTURY | |
| List B: | | |
| ART 225 | ART HISTORY: ASIAN ART | |
| ART 226 | SURVEY OF NON-WESTERN ART | |
| ART 250 | WOMEN ARTISTS THROUGH HISTORY | |
| ART 272 | GRAPHIC DESIGN HISTORY | |
| Studio Concentration | | |
| Select a minimum of 11 credits/units from one of the following studio concentration areas: ³ | | 11 |
| Metal Arts | | |
| Photography | | |
| Ceramics | | |
| Drawing/Painting | | |
| General Electives | | 7 |
| 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. | | |
| Total Credits/Units | | 90 |

¹ Cannot be an Art class.

² Must include a lab course.

³ Must not include those listed in the Foundations requirements.

Studio Concentrations

Metal Arts

| Code | Title | Credits/ Units |
|---------|--|-------------------|
| ART 189 | METAL ARTS I | 4 |
| ART 190 | METAL ARTS II | 4 |
| ART 191 | METAL ARTS III | 4 |
| ART 295 | WELDED SCULPTURE THEORY I ¹ | 1 |
| ART 296 | WELDED SCULPTURE THEORY II ¹ | 1 |
| ART 297 | WELDED SCULPTURE THEORY III ¹ | 1 |

¹ Required concurrent enrollment in WELD 120, WELD 121, and WELD 122 will count towards 11 credit/unit concentration.

Photography

| Code | Title | Credits/ Units |
|---------|------------------------|-------------------|
| ART 140 | DARKROOM PHOTOGRAPHY | 4 |
| ART 141 | PHOTOGRAPHY II | 4 |
| ART 142 | PHOTOGRAPHY III | 4 |
| ART 145 | DIGITAL PHOTOGRAPHY I | 3 |
| ART 146 | DIGITAL PHOTOGRAPHY II | 4 |

Ceramics

| Code | Title | Credits/ Units |
|---------|-----------------------|-------------------|
| ART 180 | CERAMICS I: POTTERY | 4 |
| ART 181 | CERAMICS II: POTTERY | 4 |
| ART 182 | CERAMICS III: POTTERY | 4 |

Drawing/Painting

| Code | Title | Credits/ Units |
|---------|--------------------------------|-------------------|
| ART 104 | OBSERVATIONAL DRAWING | 4 |
| ART 105 | CONTEMPORARY DRAWING PRACTICES | 4 |
| ART 120 | INTRODUCTION TO PRINTMAKING | 3 |
| ART 121 | PRINTMAKING II | 3 |
| ART 122 | PRINTMAKING III | 3 |
| ART 203 | THE HUMAN FIGURE I | 4 |
| ART 204 | THE HUMAN FIGURE II | 4 |
| ART 257 | PAINTING I | 4 |
| ART 258 | PAINTING II | 4 |
| ART 259 | PAINTING III | 4 |
| ART 260 | WATERCOLOR I | 4 |
| ART 261 | WATERCOLOR II | 4 |
| ART 262 | WATERCOLOR III | 4 |

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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills.(GE)

Studio Arts (AADTA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of study for those wanting a general AA/DTA degree with an emphasis in Studio Art. Lower division course requirements will vary depending on the transfer institution, but this program is specifically designed to fulfill all lower division requirements for students wishing to obtain a BA with a minor in Fine Arts at Washington State University, Vancouver.

This pathway fulfills all the academic requirements of the general AA/DTA degree at Clark College, while still allowing students to gain a solid foundation in art practice and theory. The AA/DTA with a concentration in Studio Art may be the best pathway for students with a strong interest in art, and the intent to pursue their art practice through a related area such as business, education, or social services, for example. Students who earn Clark College's Associate in Arts (DTA) degree will normally be able to transfer to most Washington (and several Oregon) public colleges and universities with junior standing, having met all the lower-division (100- and 200- level) academic course requirements. This does not guarantee entry into a specific major area at the transfer school, however.

Contact an advisor at the transfer institution to determine required coursework and specific entry requirements as early as possible.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | 10 |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&107 | MATH IN SOCIETY | 5 |
| or any qualifying college level math course | | |
| <i>Health and Physical Education</i> | | 3 |
| Course Options (p. 326) | | |
| <i>Humanities</i> | | 10 |
| ART 220 | ART HISTORY: ANCIENT TO LATE ANTIQUE | 5 |
| or ART 221 | ART HISTORY: MEDIEVAL-RENAISSANCE | |
| or ART 222 | ART HISTORY: BAROQUE-MODERN | |
| 5 credits of A-list Humanities (HA) from a department other than ART | | |
| <i>Social Sciences</i> | | 15 |
| CMST&230 | SMALL GROUP COMMUNICATION (recommend) ¹ | 5 |
| Course Options (p. 327) | | |
| <i>Natural Sciences</i> | | 15 |
| Course Options (p. 327) | | |

| <i>Additional Requirements</i> | | |
|--|---|-------------------|
| Code | Title | Credits/ Units |
| COLL 101 | COLLEGE ESSENTIALS: INTRODUCTION TO CLARK | 2 |
| Art CORE Courses: Drawing Focus . ART 103 is required for all students. A second drawing class of either ART 104, ART 105, or ART 203 is also required. | | |
| ART 103 | DRAWING I | 3 |
| ART 104 | OBSERVATIONAL DRAWING | 4 |
| or ART 105 | CONTEMPORARY DRAWING PRACTICES | |
| or ART 203 | THE HUMAN FIGURE I | |

AND

| Code | Title | Credits/ Units |
|---|-------------------------|-------------------|
| Art CORE Courses: 2D Focus (choose two of the following) | | |
| ART 110 | CREATIVITY AND CONCEPT | 3 |
| ART 115 | TWO-DIMENSIONAL DESIGN | 4 |
| ART 116 | COLOR THEORY AND DESIGN | 4 |
| ART 257 | PAINTING I | 4 |
| ART 258 | PAINTING II | 4 |

OR

| Code | Title | Credits/ Units |
|---|------------------------------|-------------------|
| Art CORE Courses: 3D-Focus (choose two of the following) | | |
| ART 117 | THREE-DIMENSIONAL DESIGN | 4 |
| ART 180 | CERAMICS I: POTTERY | 4 |
| ART 181 | CERAMICS II: POTTERY | 4 |
| ART 189 | METAL ARTS I | 4 |
| ART 190 | METAL ARTS II | 4 |
| ART 295 | WELDED SCULPTURE THEORY I | 4 |
| & WELD 120 | and WELDED SCULPTURE LAB I | |
| ART 296 | WELDED SCULPTURE THEORY II | 4 |
| & WELD 121 | and WELDING SCULPTURE LAB II | |

| Code | Title | Credits/ Units |
|---|-------|-------------------|
| <i>Art Choice Courses</i> | | |
| Choose any two additional ART-prefix classes. Cannot be classes used to satisfy other areas of this degree | | 7-8 |
| <i>General Electives</i> | | |
| 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. | | 7-9 |
| Total Credits | | 90 |

¹Fulfills Oral Communication (OC) requirement

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' 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.
- Associate in Arts - Direct Transfer (AA) (p. 22)

Associate in Arts - Direct Transfer (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|-------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Select an option: | | 10 |

| | | |
|--|----|--|
| Option One | | |
| Option Two | | |
| Quantitative Skills/Symbolic Reasoning Skills ¹ | | |
| Choose from the courses below to complete the minimum of five (5) credits/units: | 5 | |
| MATH 102 COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION | 5 | |
| MATH 103 COLLEGE TRIGONOMETRY | | |
| MATH 104 FINITE MATH WITH SUPPLEMENTAL INSTRUCTION | 5 | |
| MATH 105 FINITE MATHEMATICS | | |
| MATH 110 COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION | 5 | |
| MATH 111 COLLEGE ALGEBRA | | |
| MATH 122 MATH FOR ELEMENTARY TEACHERS | | |
| MATH 123 MATH FOR ELEMENTARY TEACHERS | | |
| MATH 124 MATH FOR ELEMENTARY TEACHERS | | |
| MATH 140 CALCULUS FOR LIFE SCIENCES | | |
| MATH 215 LINEAR ALGEBRA | | |
| MATH 221 DIFFERENTIAL EQUATIONS | | |
| MATH&107 MATH IN SOCIETY | | |
| MATH&146 INTRODUCTION TO STATISTICS | | |
| MATH&148 BUSINESS CALCULUS | | |
| MATH&151 CALCULUS I | | |
| MATH&152 CALCULUS II | | |
| MATH&153 CALCULUS III | | |
| MATH&254 CALCULUS IV | | |
| PHIL&117 TRADITIONAL LOGIC | | |
| PHIL&120 SYMBOLIC LOGIC | | |
| Health & Physical Education | | |
| Select an option: | 3 | |
| Option One | | |
| Option Two | | |
| Oral Communications | | |
| CMST&210 INTERPERSONAL COMMUNICATION | 5 | |
| or CMST&220 PUBLIC SPEAKING | | |
| or CMST&230 SMALL GROUP COMMUNICATION | | |
| Subtotal | 38 | |
| Additional Requirements | | |
| COLL 101 COLLEGE ESSENTIALS: INTRODUCTION TO CLARK | 2 | |
| Subtotal | 2 | |
| Distribution Requirements | | |
| Humanities | | |
| Course Options (p. 326) ² | 15 | |
| Social Sciences | | |
| Course Options (p. 327) ³ | 15 | |
| Natural Sciences | | |
| Course Options (p. 327) ⁴ | 15 | |
| Elective Requirements ⁵ | | |
| Specified Electives | | |
| Course Options (p. 328) ⁶ | 12 | |
| General Electives | | |

| | |
|--------------------------------------|-----------|
| Course Options (p. 328) ⁷ | 3 |
| Total Credits/Units | 90 |

- For admission to the institution, the University of Washington requires completion of the course designated Algebra II 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 credits/units, but not as meeting its QSR requirement, since UW offers no degree pathway for which it is appropriate.
- Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than 10 credits/units from any one subject area. A maximum of five (5) credits/units of "B" list coursework may be applied. A maximum of five (5) credits/units of 100-level world language can be applied.
- Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from any one subject area.
- Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from one subject area. You must include at least one lab science.
- Complete a total of twenty-seven (27) credits/units from courses numbered 100 and above. No more than 15 credits/units can be taken from the General Elective area.
- Approved courses that apply: C, Q, HA, HB, SS, NS, SE, HE, HPE, PE, OC. A maximum of two (2) credits/units in PE activity can apply toward this area. Courses coded as HPE count as one (1) credit/unit of PE activity.
- 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.

Communication Skills Options

Option One

| Code | Title | Credits/Units |
|--------------------------------|----------------------------|---------------|
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Select one from the following: | | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | |
| ENGL&235 | TECHNICAL WRITING | |
| ENGL 110 | COMPOSITION FOR LITERATURE | |
| Total Credits/Units | | 10 |

Option Two

| Code | Title | Credits/Units |
|--------------------------------|------------------------------|---------------|
| ENGL 103 | ADVANCED ENGLISH COMPOSITION | 3 |
| Select one from the following: | | 3-5 |

| | | |
|--------------------------------|-----------------------------|-------|
| ENGL 108 | WRITING ABOUT FILM | |
| ENGL 110 | COMPOSITION FOR LITERATURE | |
| BUS 211 | BUSINESS COMMUNICATIONS | |
| Select one from the following: | | 5 |
| CMST&210 | INTERPERSONAL COMMUNICATION | |
| CMST&220 | PUBLIC SPEAKING | |
| CMST&230 | SMALL GROUP COMMUNICATION | |
| Total Credits/Units | | 11-13 |

- 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)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Health & Physical Education Options

Option One

| Code | Title | Credits/ Units |
|--------------------------------|---------------------------|-------------------|
| Select one from the following: | | 2-3 |
| HLTH 100 | FOOD AND YOUR HEALTH | |
| HLTH 101 | HEALTH FOR ADULT LIVING | |
| HLTH 103 | ENVIRONMENTAL HEALTH | |
| HLTH 104 | WEIGHT AND YOUR HEALTH | |
| HLTH 108 | HAPPINESS AND YOUR HEALTH | |
| HLTH 206 | HUMAN SEXUALITY | |
| HLTH 207 | WOMEN'S HEALTH | |
| HLTH 208 | MEN'S HEALTH | |
| HLTH 210 | MULTICULTURAL HEALTH | |
| HLTH 212 | CANNABIS AND YOUR HEALTH | 2 |
| PE activity | | |
| Total Credits/Units | | 4-5 |

Option Two

| Code | Title | Credits/ Units |
|---------------------|------------------|-------------------|
| HPE 258 | FITNESS-WELLNESS | 3 |
| or HPE 266 | MIND BODY HEALTH | |
| Total Credits/Units | | 3 |

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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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
- Associate in Science Transfer - General (AST1) (p. 25)

Associate in Science Transfer - General (AST1)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Select one from the following: | | 5 |
| ENGL&101 | ENGLISH COMPOSITION I College-Level Composition Course (p. 326) | |
| Subtotal | | 5 |
| <i>Quantitatives Skills</i> | | |
| MATH&151 | CALCULUS I ¹ | 5 |
| MATH&152 | CALCULUS II ² | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Select one option (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities (HA) (HB) and Social Sciences (SS) course(s)</i> | | |
| Humanities (HA) Course (p. 326) | | 5 |
| Social Sciences (SS) Course (p. 327) | | 5 |
| Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 326) | | 5 |
| Subtotal | | 15 |
| Pre-major Program Requirements ³ | | |
| <i>General Chemistry Sequence</i> | | |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&142 | GENERAL CHEMISTRY II | 4 |
| CHEM&143 | GENERAL CHEMISTRY III | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | 1 |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | 2 |
| <i>Additional Sequence</i> | | |

| | | |
|--|---|-------|
| Select one sequence from the following: | | 15 |
| Biology Sequence | | |
| Physics Sequence (100 level) | | |
| Physics Sequence (200 level) | | |
| <i>Additional mathematics course(s) ⁴</i> | | |
| MATH&153 | CALCULUS III | 5 |
| or MATH&146 INTRODUCTION TO STATISTICS | | |
| <i>Additional requirements for intended major ⁵</i> | | |
| Select one from the following: | | 10-15 |
| BIOL 101 | ENVIRONMENTAL BIOLOGY | |
| BIOL 105 | SMALL WORLD ANTIBIOTICS RESEARCH I | |
| BIOL 139 | INTRODUCTION TO WILDLIFE | |
| BIOL 140 | MAMMALS OF THE NORTHWEST | |
| BIOL 141 | BIRDS OF THE PACIFIC NORTHWEST | |
| BIOL 142 | FRESHWATER FISHES OF THE PACIFIC NORTHWEST | |
| BIOL 143 | INTRODUCTION TO FORESTRY | |
| BIOL 145 | REPTILES & AMPHIBIANS OF THE PACIFIC NW | |
| BIOL 167 | HUMAN GENETICS | |
| BIOL 168 | HUMAN GENETICS LABORATORY | |
| BIOL 208 | FIELD STUDIES IN BIOLOGY | |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | |
| BIOL&222 | MAJORS CELL/MOLECULAR | |
| BIOL&223 | MAJORS ORGANISMAL PHYS | |
| BIOL 224 | FLOWERING PLANTS OF THE PACIFIC NORTHWEST | |
| BIOL&241 | HUMAN ANATOMY AND PHYSIOLOGY I | |
| BIOL&242 | HUMAN ANATOMY AND PHYSIOLOGY II | |
| BIOL&251 | HUMAN A & P I | |
| BIOL&252 | HUMAN A & P II | |
| BIOL&253 | HUMAN A & P III | |
| BIOL&260 | MICROBIOLOGY | |
| CHEM&241 | ORGANIC CHEMISTRY I | |
| CHEM&242 | ORGANIC CHEMISTRY II | |
| CHEM&243 | ORGANIC CHEMISTRY III | |
| CHEM&251 | ORGANIC CHEMISTRY LABORATORY I | |
| CHEM&252 | ORGANIC CHEMISTRY LABORATORY II | |
| CHEM&253 | ORGANIC CHEMISTRY LABORATORY III | |
| ENVS 218 | FIELD STUDIES IN ENVIRONMENTAL SCIENCE | |
| ENVS 221 | ENVIRONMENTAL SCIENCE: PROBLEM SOLVING | |
| GEOL 102 | INTRO TO GEOL II: EARTH'S SURFACE PROCESSES | |
| GEOL 218 | FIELD STUDIES IN GEOLOGY | |
| GEOL&101 | INTRO PHYSICAL GEOLOGY | |
| MATH 215 | LINEAR ALGEBRA | |
| MATH 221 | DIFFERENTIAL EQUATIONS | |
| MATH&254 | CALCULUS IV | |
| PHYS&124 | GENERAL PHYSICS LAB I | |
| PHYS&125 | GENERAL PHYSICS LAB II | |
| PHYS&126 | GENERAL PHYSICS LAB III | |
| PHYS&134 | GENERAL PHYSICS I | |
| PHYS&135 | GENERAL PHYSICS II | |
| PHYS&136 | GENERAL PHYSICS III | |

| | |
|----------|-----------------------------|
| PHYS&231 | ENGINEERING PHYSICS LAB I |
| PHYS&232 | ENGINEERING PHYSICS LAB II |
| PHYS&233 | ENGINEERING PHYSICS LAB III |
| PHYS&241 | ENGINEERING PHYSICS I |
| PHYS&242 | ENGINEERING PHYSICS II |
| PHYS&243 | ENGINEERING PHYSICS III |

Remaining Credits

Sufficient additional college-level credits/units so that the total credits/units earned are at least 90 term credits/units⁶

Total Credits/Units 90

¹ 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.

² Or select math courses that have MATH&152 as a prerequisite.

³ Must consult with faculty or advising to pick the correct sequences.

⁴ Check with chosen 4-year school.

⁵ Preferably a 3-quarter sequence; check with chosen 4-year school regarding course selection to better prepare for major.

⁶ These remaining credits/units 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/units will apply.

Pre-Major Program Requirements

Biology Sequence

| Code | Title | Credits/ Units |
|---------------------|--------------------------|-------------------|
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | 5 |
| BIOL&222 | MAJORS CELL/MOLECULAR | 5 |
| BIOL&223 | MAJORS ORGANISMAL PHYS | 5 |
| Total Credits/Units | | 15 |

Physics Sequence (100 level)

| Code | Title | Credits/ Units |
|---------------------|-------------------------|-------------------|
| PHYS&124 | GENERAL PHYSICS LAB I | 1 |
| PHYS&125 | GENERAL PHYSICS LAB II | 1 |
| PHYS&126 | GENERAL PHYSICS LAB III | 1 |
| PHYS&134 | GENERAL PHYSICS I | 4 |
| PHYS&135 | GENERAL PHYSICS II | 4 |
| PHYS&136 | GENERAL PHYSICS III | 4 |
| Total Credits/Units | | 15 |

Physics Sequence (200 level)

| Code | Title | Credits/ Units |
|----------|-----------------------------|-------------------|
| PHYS&231 | ENGINEERING PHYSICS LAB I | 1 |
| PHYS&232 | ENGINEERING PHYSICS LAB II | 1 |
| PHYS&233 | ENGINEERING PHYSICS LAB III | 1 |
| PHYS&241 | ENGINEERING PHYSICS I | 4 |
| PHYS&242 | ENGINEERING PHYSICS II | 4 |

| | | |
|---------------------|-------------------------|----|
| PHYS&243 | ENGINEERING PHYSICS III | 4 |
| Total Credits/Units | | 15 |

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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.

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
- Associate in Science – General (AST2) (p. 27)

Associate in Science – General (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills/Symbolic Reasoning Skills</i> | | |
| MATH&151 | CALCULUS I ¹ | 5 |
| MATH&152 | CALCULUS II ² | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Select one option (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities & Social Sciences</i> | | |
| Humanities (HA) Course Options (p. 326) | | 5 |
| Social Sciences (SS) Course Options (p. 327) | | 5 |
| Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 326) ³ | | 5 |
| Subtotal | | 15 |
| <i>Additional Math Courses</i> | | |
| MATH&153 | CALCULUS III | 5 |
| | or MATH&146 INTRODUCTION TO STATISTICS | |
| Subtotal | | 5 |
| Pre-Major Program Requirements | | |
| Select one sequence from the following: ⁴ | | 25 |
| Engineering | | |
| Non-Engineering | | |
| Elective Requirements | | |
| Select one from the following: | | 32 |
| Engineering Major | | |

Non-Engineering Major

| | |
|----------------------------|-----------|
| Total Credits/Units | 90 |
|----------------------------|-----------|

- ¹ 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.
- ² Or select from math courses that have MATH&152 as a prerequisite.
- ³ A maximum of five (5) credits/units of Humanities B (HB) coursework may be applied.
- ⁴ 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.

Pre-Major Program Requirements

Engineering Major

| Code | Title | Credits/ Units |
|---------------------|--------------------------------|-------------------|
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| PHYS&231 | ENGINEERING PHYSICS LAB I | 1 |
| PHYS&232 | ENGINEERING PHYSICS LAB II | 1 |
| PHYS&233 | ENGINEERING PHYSICS LAB III | 1 |
| PHYS&241 | ENGINEERING PHYSICS I | 4 |
| PHYS&242 | ENGINEERING PHYSICS II | 4 |
| PHYS&243 | ENGINEERING PHYSICS III | 4 |
| Total Credits/Units | | 20 |

Non-Engineering Major

Complete one of the Physics sequences – Consult with the baccalaureate institution to see which sequence is required.

Sequence One

| Code | Title | Credits/ Units |
|----------|-------------------------|-------------------|
| PHYS&124 | GENERAL PHYSICS LAB I | 1 |
| PHYS&125 | GENERAL PHYSICS LAB II | 1 |
| PHYS&126 | GENERAL PHYSICS LAB III | 1 |
| PHYS&134 | GENERAL PHYSICS I | 4 |
| PHYS&135 | GENERAL PHYSICS II | 4 |
| PHYS&136 | GENERAL PHYSICS III | 4 |

Non-Engineering Additional MATH Courses

| | | |
|---------------------|--------------|----|
| MATH&153 | CALCULUS III | 5 |
| Total Credits/Units | | 20 |

Sequence Two

| Code | Title | Credits/ Units |
|----------|-----------------------------|-------------------|
| PHYS&231 | ENGINEERING PHYSICS LAB I | 1 |
| PHYS&232 | ENGINEERING PHYSICS LAB II | 1 |
| PHYS&233 | ENGINEERING PHYSICS LAB III | 1 |

| | | |
|--|--------------------------------|----|
| PHYS&241 | ENGINEERING PHYSICS I | 4 |
| PHYS&242 | ENGINEERING PHYSICS II | 4 |
| PHYS&243 | ENGINEERING PHYSICS III | 4 |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| Non-Engineering Additional MATH Courses | | |
| MATH&153 | CALCULUS III | 5 |
| Total Credits/Units | | 25 |

Elective Requirements

Engineering Major

| Code | Title | Credits/ Units |
|--|--|-------------------|
| Select 32 credits/units from the following: 32 | | |
| CHEM&142 | GENERAL CHEMISTRY II | |
| CHEM&143 | GENERAL CHEMISTRY III | |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | |
| CHEM&241 | ORGANIC CHEMISTRY I | |
| CHEM&242 | ORGANIC CHEMISTRY II | |
| CHEM&243 | ORGANIC CHEMISTRY III | |
| CHEM&251 | ORGANIC CHEMISTRY LABORATORY I | |
| CHEM&252 | ORGANIC CHEMISTRY LABORATORY II | |
| CHEM&253 | ORGANIC CHEMISTRY LABORATORY III | |
| CSE 101 | ENGINEERING AND COMPUTER SCIENCE ORIENTATION | |
| CSE 120 | INTRO TO ELECTRICAL/COMPUTING | |
| CSE 121 | INTRODUCTION TO C | |
| CSE 215 | DISCRETE STRUCTURES | |
| CSE 222 | INTRODUCTION TO DATA STRUCTURES | |
| CSE 223 | DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMIN | |
| CSE 224 | PROGRAMMING TOOLS | |
| CSE 290 | SPECIAL PROJECTS | |
| ENGR&104 | INTRODUCTION TO DESIGN | |
| ENGR&215 | DYNAMICS | |
| ENGR&224 | THERMODYNAMICS | |
| ENGR&225 | MECHANICS OF MATERIALS | |
| ENGR 101 | ENGINEERING AND COMPUTER SCIENCE ORIENTATION | |
| ENGR 107 | INTRO TO AEROSPACE ENGINEERING | |
| ENGR 109 | INTRODUCTION TO ENGINEERING | |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | |
| ENGR 115 | GEOMETRIC DIMENSIONING AND TOLERANCING | |
| ENGR 120 | INTRO TO ELECTRICAL/COMPUTER SCI & ENGINEERI | |
| ENGR 121 | FIELD SURVEY I | |
| ENGR 150 | BASIC SOLIDWORKS | |
| ENGR 208 | FUNDAMENTALS OF FLIGHT | |
| ENGR 221 | MATERIALS SCIENCE | |
| ENGR 239 | MANUFACTURING PROCESSES | |
| ENGR 240 | APPLIED NUMERICAL METHODS FOR ENGINEERS | |
| ENGR 250 | DIGITAL LOGIC DESIGN | |

| | | |
|---------------------|-------------------------------------|----|
| ENGR 252 | ELECTRICAL CIRCUITS AND SIGNALS | |
| ENGR 253 | SIGNALS AND SYSTEMS | |
| ENGR 270 | DIGITAL SYSTEMS AND MICROPROCESSORS | |
| ENGR 280 | SELECTED TOPICS | |
| MATH&254 | CALCULUS IV | |
| MATH 215 | LINEAR ALGEBRA | |
| MATH 221 | DIFFERENTIAL EQUATIONS | |
| Total Credits/Units | | 32 |

Non-Engineering Major

| Code | Title | Credits/ Units |
|--|--|-------------------|
| Select 32 credits/units from the following: 32 | | |
| BIOL&100 | SURVEY OF BIOLOGY | |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | |
| BIOL&222 | MAJORS CELL/MOLECULAR | |
| BIOL&223 | MAJORS ORGANISMAL PHYS | |
| BIOL&251 | HUMAN A & P I | |
| BIOL&252 | HUMAN A & P II | |
| BIOL&253 | HUMAN A & P III | |
| BIOL&260 | MICROBIOLOGY | |
| BIOL 101 | ENVIRONMENTAL BIOLOGY | |
| BIOL 164 | HUMAN BIOLOGY | |
| BIOL 165 | HUMAN BIOLOGY LAB | |
| BIOL 167 | HUMAN GENETICS | |
| BIOL 168 | HUMAN GENETICS LABORATORY | |
| BIOL 208 | FIELD STUDIES IN BIOLOGY | |
| BIOL 224 | FLOWERING PLANTS OF THE PACIFIC NORTHWEST | |
| CHEM&142 | GENERAL CHEMISTRY II | |
| CHEM&143 | GENERAL CHEMISTRY III | |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | |
| CHEM&241 | ORGANIC CHEMISTRY I | |
| CHEM&242 | ORGANIC CHEMISTRY II | |
| CHEM&243 | ORGANIC CHEMISTRY III | |
| CHEM&251 | ORGANIC CHEMISTRY LABORATORY I | |
| CHEM&252 | ORGANIC CHEMISTRY LABORATORY II | |
| CHEM&253 | ORGANIC CHEMISTRY LABORATORY III | |
| CSE 120 | INTRO TO ELECTRICAL/COMPUTING | |
| CSE 121 | INTRODUCTION TO C | |
| CSE 215 | DISCRETE STRUCTURES | |
| CSE 222 | INTRODUCTION TO DATA STRUCTURES | |
| CSE 223 | DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMIN | |
| CSE 224 | PROGRAMMING TOOLS | |
| CSE 290 | SPECIAL PROJECTS | |
| ENGR&104 | INTRODUCTION TO DESIGN | |
| ENGR&215 | DYNAMICS | |
| ENGR&224 | THERMODYNAMICS | |
| ENGR&225 | MECHANICS OF MATERIALS | |
| ENGR 101 | ENGINEERING AND COMPUTER SCIENCE ORIENTATION | |

| | |
|----------|--|
| ENGR 107 | INTRO TO AEROSPACE ENGINEERING |
| ENGR 109 | INTRODUCTION TO ENGINEERING |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION |
| ENGR 115 | GEOMETRIC DIMENSIONING AND TOLERANCING |
| ENGR 120 | INTRO TO ELECTRICAL/COMPUTER SCI & ENGINEERI |
| ENGR 121 | FIELD SURVEY I |
| ENGR 150 | BASIC SOLIDWORKS |
| ENGR 221 | MATERIALS SCIENCE |
| ENGR 239 | MANUFACTURING PROCESSES |
| ENGR 240 | APPLIED NUMERICAL METHODS FOR ENGINEERS |
| ENGR 250 | DIGITAL LOGIC DESIGN |
| ENGR 252 | ELECTRICAL CIRCUITS AND SIGNALS |
| ENGR 253 | SIGNALS AND SYSTEMS |
| ENGR 270 | DIGITAL SYSTEMS AND MICROPROCESSORS |
| ENGR 280 | SELECTED TOPICS |
| ENVS&101 | INTRODUCTION TO ENVIRONMENTAL SCIENCE |
| ENVS 109 | INTEGRATED ENVIRONMENTAL SCIENCE |
| ENVS 218 | FIELD STUDIES IN ENVIRONMENTAL SCIENCE |
| ENVS 221 | ENVIRONMENTAL SCIENCE: PROBLEM SOLVING |
| MATH&153 | CALCULUS III |
| MATH&254 | CALCULUS IV |
| MATH 103 | COLLEGE TRIGONOMETRY |
| MATH 111 | COLLEGE ALGEBRA |
| MATH 215 | LINEAR ALGEBRA |
| MATH 221 | DIFFERENTIAL EQUATIONS |
| PHYS&231 | ENGINEERING PHYSICS LAB I |
| PHYS&232 | ENGINEERING PHYSICS LAB II |
| PHYS&233 | ENGINEERING PHYSICS LAB III |
| PHYS&241 | ENGINEERING PHYSICS I |
| PHYS&242 | ENGINEERING PHYSICS II |
| PHYS&243 | ENGINEERING PHYSICS III |

Total Credits/Units

32

*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 progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)

- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- 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

AUTOMOTIVE TECHNOLOGY

Clark College has two automotive program offerings:

- Toyota T-TEN
- HiTECC (Dealer Ready)

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 term; the format is a two-year program of a term of instruction on campus followed by a term of on-the-job learning. This means that for the two years that they are in the program, students alternate one term of full-time classroom and lab practice with one term 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) (p. 30)
- T-TEN Automotive (AAT) (p. 30)
- HiTECC Automotive Technology (CP) (p. 31)
- HiTECC Automotive Technology (AAT) (p. 32)

T-TEN Automotive (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|-------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 106 | APPLIED OFFICE ENGLISH ¹ | 3 |
| Subtotal | | 3 |

Computational Skills

| | |
|-------------------------|---|
| Course Options (p. 337) | 3 |
| Subtotal | 3 |

Human Relations

| | |
|-------------------------|---|
| Course Options (p. 337) | 3 |
| Subtotal | 3 |

Major Area Requirements

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

| | |
|---------------------|-----|
| Total Credits/Units | 118 |
|---------------------|-----|

¹ Recommended.

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.

T-TEN Automotive (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog

via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I ¹ | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> ² | | |
| Select one from the following: | | 5 |
| MATH 103 | COLLEGE TRIGONOMETRY ¹ | |
| MATH&107 | MATH IN SOCIETY ¹ | |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| SOC& 101 | INTRO TO SOCIOLOGY ¹ | 5 |
| Subtotal | | |
| Major Area Requirements | | |
| AUTO 150 | INTRODUCTION TO TOYOTA | 5 |
| AUTO 151 | TOYOTA ELECTRICAL I | 8 |
| AUTO 152 | TOYOTA ELECTRICAL II | 8 |
| AUTO 153 | TOYOTA BRAKES | 8 |
| AUTO 154 | TOYOTA INTERNSHIP I | 8 |
| AUTO 155 | TOYOTA STEERING AND SUSPENSION | 8 |
| AUTO 156 | TOYOTA ENGINE PERFORMANCE I | 8 |
| AUTO 157 | TOYOTA ENGINE PERFORMANCE II | 8 |
| AUTO 250 | TOYOTA CLIMATE CONTROL | 8 |
| AUTO 251 | TOYOTA INTERNSHIP II | 8 |
| AUTO 252 | TOYOTA ENGINE MECHANICAL | 8 |
| AUTO 253 | TOYOTA MANUAL TRANSMISSION | 8 |
| AUTO 254 | AUTOMATIC TRANSMISSIONS | 8 |
| AUTO 255 | TOYOTA INTERNSHIP III | 8 |
| Total Credits/Units | | 124 |

¹ Recommended.

² College-Level Math Required.

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.

HiTECC Automotive Technology (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 106 | APPLIED OFFICE ENGLISH ¹ | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| AUTO 160 | INTRODUCTION TO DEALERSHIP OPERATIONS | 5 |
| AUTO 161 | ELECTRICAL I | 8 |
| AUTO 162 | ELECTRICAL II | 8 |
| AUTO 163 | BRAKES | 8 |
| AUTO 164 | INTERNSHIP I | 8 |
| AUTO 165 | STEERING AND SUSPENSION | 8 |
| AUTO 166 | ENGINE PERFORMANCE I | 8 |
| AUTO 167 | ENGINE PERFORMANCE II | 8 |
| AUTO 260 | CLIMATE CONTROL | 8 |
| AUTO 261 | INTERNSHIP II | 8 |
| AUTO 262 | ENGINE MECHANICAL | 8 |
| AUTO 263 | MANUAL TRANSMISSION | 8 |
| AUTO 264 | AUTOMATIC TRANSMISSIONS | 8 |
| AUTO 265 | INTERNSHIP III | 8 |
| Total Credits/Units | | 118 |

¹ Recommended.

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- 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.

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- 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.

HiTECC Automotive Technology (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I ¹ | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| SOC& 101 | INTRO TO SOCIOLOGY ¹ | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| AUTO 160 | INTRODUCTION TO DEALERSHIP OPERATIONS | 5 |
| AUTO 161 | ELECTRICAL I | 8 |
| AUTO 162 | ELECTRICAL II | 8 |
| AUTO 163 | BRAKES | 8 |
| AUTO 164 | INTERNSHIP I | 8 |
| AUTO 165 | STEERING AND SUSPENSION | 8 |
| AUTO 166 | ENGINE PERFORMANCE I | 8 |
| AUTO 167 | ENGINE PERFORMANCE II | 8 |
| AUTO 260 | CLIMATE CONTROL | 8 |
| AUTO 261 | INTERNSHIP II | 8 |
| AUTO 262 | ENGINE MECHANICAL | 8 |
| AUTO 263 | MANUAL TRANSMISSION | 8 |
| AUTO 264 | AUTOMATIC TRANSMISSIONS | 8 |
| AUTO 265 | INTERNSHIP III | 8 |
| Total Credits/Units | | 124 |

¹ Recommended.

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

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 Engineering (AST2) (p. 33)

Bioengineering and Chemical Engineering (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

Clark College Equivalents

| Code | Title | Credits/ Units |
|---|-------------------------------------|-------------------|
| Communication Skills | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Mathematics ¹ | | |
| MATH&151 | CALCULUS I ² | 5 |
| MATH&152 | CALCULUS II | 5 |
| MATH&153 | CALCULUS III | 5 |
| MATH 221 | DIFFERENTIAL EQUATIONS ³ | 5 |
| Physics | | |
| Complete the following Physics sequences with the required concurrent enrollment: | | |
| <i>Sequence One</i> | | |
| PHYS&241 | ENGINEERING PHYSICS I ⁴ | 4 |

| | | |
|--------------------------------|---|-----------|
| PHYS&231 | ENGINEERING PHYSICS LAB I | 1 |
| <i>Sequence Two</i> | | |
| PHYS&242 | ENGINEERING PHYSICS II ⁵ | 4 |
| PHYS&231 | ENGINEERING PHYSICS LAB I | 1 |
| <i>Sequence Three</i> | | |
| PHYS&243 | ENGINEERING PHYSICS III ⁶ | 4 |
| PHYS&233 | ENGINEERING PHYSICS LAB III | 1 |
| Chemistry with Lab | | |
| CHEM&141 & CHEM&151 | GENERAL CHEMISTRY I and GENERAL CHEMISTRY LABORATORY I | 5 |
| CHEM&142 & CHEM&152 | GENERAL CHEMISTRY II and GENERAL CHEMISTRY LABORATORY II | 5 |
| CHEM&143 & CHEM&153 | GENERAL CHEMISTRY III and GENERAL CHEMISTRY LABORATORY III | 6 |
| CHEM&241 & CHEM&251 | ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY LABORATORY I | 5 |
| Select one from the following: | | 5 |
| CHEM&242 & CHEM&252 | ORGANIC CHEMISTRY II and ORGANIC CHEMISTRY LABORATORY II | |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | |
| Total Credits/Units | | 95 |

- ¹ Required at Clark: MATH&254 (Five credits/units) – Calculus IV. Other electives as advised dependent on transfer institution.
- ² MATH 103 and MATH 111 are required prerequisites for MATH&151 that may be needed if calculus placement is not met via COMPASS.
- ³ Clark requires concurrent enrollment of completion in MATH&254 when taking MATH 221.
- ⁴ Requires concurrent enrollment in PHYS 094.
- ⁵ Requires concurrent enrollment in PHYS 095.
- ⁶ Requires concurrent enrollment in PHYS 096.

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:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (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)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- 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.

BIOLOGICAL SCIENCES

Biological sciences are the basic foundation for many professions. Upper-division requirements at the transfer institution will determine the area of specialization. Students should work with a faculty advisor to develop a specific program.

Professional Opportunities

Following completion of a Bachelor of Arts or Science Degree at a four-year institution of the student's choice, several avenues of employment or advancement are open. A few of these are:

- Food Processing
- Commercial Fisheries
- Graduate School
- State and Federal Wildlife agencies
- Science teaching at elementary or secondary level
- Environmental Sciences
- Transfer into professional health programs (medical, dental, pharmacy, physical therapy or optometry)
- Veterinary/Animal Science

Clark's Biological Sciences majors have had excellent success in finding placement in graduate programs, health science programs, and professional areas. Clark College offers the first two years of most Biological Sciences majors: Biology, Botany, Forestry, Genetics, Marine Biology, Microbiology, Wildlife, and Zoology. Special emphasis is placed on small class size, individual instruction, field experiences, and undergraduate research opportunities. There is good exchange between the support areas of Chemistry, Geology, and Physics to aid in developing relevant courses.

- Biological Sciences (AST1) (p. 35)
- Biology DTA/MRP (AA) (p. 36)

Biological Sciences (AST1)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--|-----------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |

| | | |
|--|---|------|
| Course Options (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities & Social Sciences</i> | | |
| Select one from the following: | | 5 |
| CMST&220 | PUBLIC SPEAKING | |
| CMST&230 | SMALL GROUP COMMUNICATION | |
| CMST&210 | INTERPERSONAL COMMUNICATION | |
| Select 10 credits/units from the following: ¹ | | 10 |
| Humanities Course Options (p. 326) | | |
| Social Sciences Course Options (p. 327) | | |
| Subtotal | | 5 |
| Pre-Major Requirements | | |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | 5 |
| BIOL&222 | MAJORS CELL/MOLECULAR | 5 |
| BIOL&223 | MAJORS ORGANISMAL PHYS | 5 |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&142 | GENERAL CHEMISTRY II | 4 |
| CHEM&143 | GENERAL CHEMISTRY III | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | 1 |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | 2 |
| Select one from the following: | | 5-6 |
| MATH&146 | INTRODUCTION TO STATISTICS | 5 |
| MATH&153 | CALCULUS III | |
| PHYS&124 & PHYS&134 | GENERAL PHYSICS LAB I and GENERAL PHYSICS I | 5 |
| PHYS&125 & PHYS&135 | GENERAL PHYSICS LAB II and GENERAL PHYSICS II | 5 |
| PHYS&126 & PHYS&136 | GENERAL PHYSICS LAB III and GENERAL PHYSICS III | 5 |
| Science Electives | | |
| BIOL 101 | ENVIRONMENTAL BIOLOGY | 5 |
| BIOL 208 or BIOL 224 | FIELD STUDIES IN BIOLOGY FLOWERING PLANTS OF THE PACIFIC NORTHWEST | 1-10 |
| BIOL 139 | INTRODUCTION TO WILDLIFE | 3 |
| Select one from the following: | | 3 |
| BIOL 140 | MAMMALS OF THE NORTHWEST ² | |
| BIOL 141 | BIRDS OF THE PACIFIC NORTHWEST | |
| BIOL 143 | INTRODUCTION TO FORESTRY | |
| BIOL 145 | REPTILES & AMPHIBIANS OF THE PACIFIC NW | 3 |
| Total Credits/Units | | 90 |

¹ Minimum of five (5) credits/units of coursework in both Humanities and Social Sciences with the additional five (5) credits/units from either Humanities or Social Sciences.

² Check with chosen 4-year school.

| Code | Title | Credits/ Units |
|--|--------------------------------|-------------------|
| Recommended Science and Composition Electives | | |
| CHEM&241 | ORGANIC CHEMISTRY I | 4 |
| CHEM&242 | ORGANIC CHEMISTRY II | 4 |
| CHEM&243 | ORGANIC CHEMISTRY III | 4 |
| CHEM&251 | ORGANIC CHEMISTRY LABORATORY I | 1 |

| | | |
|--------------------------------|-------------------------------------|---|
| CHEM&252 | ORGANIC CHEMISTRY LABORATORY II | 1 |
| CHEM&253 | ORGANIC CHEMISTRY LABORATORY III | 2 |
| Select one from the following: | | 5 |
| ENGL&102 | ENGLISH COMPOSITION II ¹ | |

¹ 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:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequality. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (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.

Biology DTA/MRP (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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

| Code | Title | Credits/ Units |
|--|--------------------------------------|-------------------|
| Basic Requirements | | |
| <i>Communications Skills</i> | | |
| | Course Options (p. 326) ¹ | 10 |
| <i>Quantitative/Symbolic Reasoning</i> | | |
| | Course Options (p. 326) ² | 5 |
| Distribution Requirements | | |
| <i>Humanities</i> | | |
| | Course Options (p. 326) ³ | 15 |
| <i>Social Sciences</i> | | |
| | Course Options (p. 327) ⁴ | 15 |
| <i>Natural Sciences</i> | | |
| | Course Options (p. 327) | 15 |
| Total Credits/Units | | 60 |

¹ Select Communication Skills (C) courses as identified and approved in the General AA DTA; may be individualized based on transfer intent.

² Intermediate algebra proficiency is required.

³ Consistent with the requirements in all DTA degrees - no more than 10 credits/units per discipline area, 5 credits/units maximum in world languages or ASL. No more than 5 credits/units of performance/skills (HB) classes are allowed.

⁴ Select coursework from at least two (2) areas of discipline; no more than 10 credits/units per discipline area.

MRP Requirements

| Code | Title | Credits/ Units |
|----------------------------|-------|-------------------|
| Basic Requirements | | |
| <i>English Composition</i> | | |

| | |
|--|----------------------------------|
| Course Options (p. 326) ¹ | 10 |
| Mathematics or Statistics | |
| Calculus I | 5 |
| Distribution Requirements | |
| <i>Humanities</i> | |
| Course Options (p. 326) ² | 15 |
| <i>Social Sciences</i> | |
| Course Options (p. 327) ³ | 15 |
| Chemistry/Biology | |
| Select 30 term credits/units from the following: | |
| <i>General Chemistry Sequence</i> | |
| Select 16 credits/units from the following: | |
| CHEM&141 | GENERAL CHEMISTRY I |
| CHEM&142 | GENERAL CHEMISTRY II |
| CHEM&143 | GENERAL CHEMISTRY III |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III |
| <i>Biology Sequence</i> | |
| Select 15 credits/units from the following: | |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION |
| BIOL&222 | MAJORS CELL/MOLECULAR |
| BIOL&223 | MAJORS ORGANISMAL PHYS |
| Electives | |
| Select additional term credits/units (p. 328) ⁴ | |
| Total Credits/Units | 89-91 |

¹ Select Communication Skills (C) courses as identified and approved in the General AA DTA; may be individualized based on transfer intent.

² Consistent with the requirements in all DTA degrees - no more than 10 credits/units per discipline area, 5 credits/units maximum in world languages or ASL. No more than 5 credits/units of performance/skills (HB) classes are allowed.

³ Select coursework from at least two (2) areas of discipline; no more than 10 credits/units per discipline area.

⁴ Students should consult with their advisor and/or intended transfer institution to select appropriate electives to reach the 90 credit/unit minimum credits/units needed for degree completion.

Clark College Equivalents

| Code | Title | Credits/Units |
|--|---|---------------|
| Basic Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative/Symbolic Reasoning Requirement</i> | | |
| Select one from the following: | | 5-6 |
| MATH&151 | CALCULUS I | |
| MATH&146 | INTRODUCTION TO STATISTICS ¹ | |
| MATH&148 | BUSINESS CALCULUS | |
| MATH 140 | CALCULUS FOR LIFE SCIENCES | |
| Distribution Requirements | | |

| | | |
|--|----------------------------------|----|
| <i>Humanities</i> | | |
| Course Options (p. 326) | | 15 |
| <i>Social Sciences</i> | | |
| Course Options (p. 327) | | 15 |
| <i>Natural Sciences</i> | | |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | 5 |
| BIOL&222 | MAJORS CELL/MOLECULAR | 5 |
| BIOL&223 | MAJORS ORGANISMAL PHYS | 5 |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&142 | GENERAL CHEMISTRY II | 4 |
| CHEM&143 | GENERAL CHEMISTRY III | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | 1 |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | 2 |
| Electives | | |
| Select 14 additional term credits/units ² | | 14 |
| Total Credits/Units | | 90 |

¹ Check with transfer institution to see if MATH 147 will also be necessary.

² Note: Clark's chemistry sequence has 16 credits/units.

Notes

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.

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.

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.

* 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:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequality. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (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.

BUSINESS ADMINISTRATION

The Business Administration program teaches individuals how to maintain a competitive edge in business today through theory and practical applications. There is special emphasis on utilizing technology to solve problems and improve productivity, teamwork, interpersonal skills, and professional workforce behavior.

Whether owning, operating, and/or managing a small or large business, Clark's Business Administration and technical education programs allow the student to specialize in a particular area of business. Graduates have found successful positions in accounting, sales and services, merchandising and management.

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

Consult with a business academic advisor for recommended course, program planning.

- Business Administration (AAS) (p. 39)
- Business DTA/MRP (AA) (p. 40)

Business Administration (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits.

| Code | Title | Credits/ Units |
|--|---------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| CMST&220 | PUBLIC SPEAKING | 5 |
| | or CMST&230 SMALL GROUP COMMUNICATION | |
| Subtotal | | 5 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) | | 3 |

| | | |
|--------------------------------|-----------------------------|---|
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Human Relations</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Social Sciences</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| Major Area Requirements | | |
| BUS 029 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS 036 | ACCOUNTING APPLICATIONS | 3 |
| BUS 110 | CUSTOMER SERVICE | 3 |
| BUS& 201 | BUSINESS LAW | 5 |
| BUS 211 | BUSINESS COMMUNICATIONS | 3 |
| BUS 260 | PRINCIPLES OF MARKETING | 5 |

Additional Major Area Electives

Select a minimum of eight to nine additional credits/units from the following areas: 8-9

| |
|--|
| Accounting (ACCT) (p. 143) |
| Business Administration (BUS) (p. 163) |
| Economics (ECON) (p. 201) |
| Supervisory Management (MGMT) (p. 234) |
| Computer Applications (BTEC) (p. 165) ¹ |

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

| | |
|----------------------------|-------|
| Total Credits/Units | 90-94 |
|----------------------------|-------|

¹ Six credit/unit maximum.

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:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain 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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)

- Demonstrate customer skills (internal and external) to establish a customer-centered business organization.
- Identify and demonstrate professional traits and behaviors that apply to job performance in real-world environments.
- Use micro- and macroeconomic concepts to analyze domestic and global business situations.
- 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.

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:

1. Clark requires 3 credits of Health-Physical Education coursework,
2. As of Fall 2011, Clark requires a course in Oral Communication, and
3. 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

| Code | Title | Credits/ Units |
|--|-------|-------------------|
| Basic Requirements | | |
| <i>Communications Skills</i> | | |
| Course Options (p. 326) | | 10 |
| <i>Quantitative/Symbolic Reasoning Requirement</i> | | |
| Course Options (p. 326) ¹ | | 5 |
| Distribution Requirements | | |
| <i>Humanities</i> | | |
| Course Options (p. 326) | | 15 |
| <i>Social Sciences</i> | | |
| Course Options (p. 327) | | 15 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 327) | | 0 |
| Major Requirements | | |
| <i>Business Courses</i> | | |
| Electives | | |

| | |
|---------------------------|----|
| Elective courses (p. 328) | |
| Total Credits/Units | 45 |

¹ Intermediate algebra proficiency is required.

MRP Requirements

| Code | Title | Credits/ Units |
|--|-------|-------------------|
| Basic Requirements | | |
| <i>English Composition</i> | | |
| Course Options (p. 326) | | 10 |
| <i>Quantitative/Symbolic Reasoning Requirement</i> | | |
| Course Options (p. 326) ¹ | | 10 |
| Distribution Requirements | | |
| <i>Humanities</i> | | |
| Course Options (p. 326) ² | | 15 |
| <i>Social Sciences</i> | | |
| Microeconomics | | 5 |
| Macroeconomics | | 5 |
| Additional social science - not economics (p. 327) | | 5 |
| <i>Natural Sciences</i> | | |
| Statistics ⁴ | | 5 |
| Course Options (p. 327) ⁵ | | 10 |
| Major Requirements | | |
| <i>Business Courses</i> | | |
| Financial Accounting | | 5 |
| Financial Accounting II | | 5 |
| Managerial Accounting | | 5 |
| Business Law or Introduction to Law | | 5 |
| Electives | | |
| Course Options (p. 328) | | 5 |
| Total Credits/Units | | 90 |

¹ Must include five credits/units of business calculus, calculus one 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.

² Consistent with the requirements in all DTA degrees - no more than 10 credits/units per discipline area, five credits/units maximum in world languages or ASL. No more than five credits/units of performance/skills classes are allowed.

³ Physical, biological, and/or earth science, including at least one lab course

⁴ business statistics preferred

⁵ Physical, biological, and/or earth science, including at least one lab course

Clark College Equivalents

| Code | Title | Credits/ Units |
|-----------------------------|------------------------|-------------------|
| Basic Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |

| | | |
|---|---|---------|
| or ENGL&235 | TECHNICAL WRITING | |
| <i>Quantitative/Symbolic Reasoning</i> | | |
| Course 1: | | |
| Select one from the following: | | 5 |
| MATH&148 | BUSINESS CALCULUS | |
| MATH&151 | CALCULUS I | |
| MATH&152 | CALCULUS II | |
| MATH&153 | CALCULUS III | |
| MATH 215 | LINEAR ALGEBRA | |
| MATH 221 | DIFFERENTIAL EQUATIONS | |
| MATH&254 | CALCULUS IV | |
| Course 2: | | |
| MATH 102 | COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION | 5 |
| or MATH 103 | COLLEGE TRIGONOMETRY | |
| or MATH 104 | FINITE MATH WITH SUPPLEMENTAL INSTRUCTION | |
| or MATH 105 | FINITE MATHEMATICS | |
| MATH 110 | COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION | 5 |
| or MATH 111 | COLLEGE ALGEBRA | |
| Select one from the following: | | 5 |
| MATH&152 | CALCULUS II | |
| MATH&153 | CALCULUS III | |
| MATH 215 | LINEAR ALGEBRA | |
| MATH 221 | DIFFERENTIAL EQUATIONS | |
| MATH&254 | CALCULUS IV | |
| Distribution Requirements | | |
| <i>Humanities</i> | | |
| Select 15 term credits/units of Humanities (p. 326) ¹ | | 15 |
| <i>Social Sciences</i> | | |
| ECON&201 | MICRO ECONOMICS | 5 |
| ECON&202 | MACRO ECONOMICS | 5 |
| Select a Social Science from outside Economics (p. 327) | | 5 |
| <i>Natural Sciences</i> | | |
| BUS 203 | DESCRIPTIVE STATISTICS ² | 3 |
| BUS 204 | INFERENTIAL STATISTICS ² | 3 |
| Select Natural Science coursework, including one lab as defined by Clark College (p. 327) | | 9-10 |
| Major Requirements | | |
| <i>Business Courses (for all schools except UW)</i> | | |
| ACCT&201 | PRINCIPLES OF ACCOUNTING I | 5 |
| ACCT&202 | PRINCIPLES OF ACCOUNTING II | 5 |
| ACCT&203 | PRINCIPLES OF ACCOUNTING III | 5 |
| BUS& 201 | BUSINESS LAW | 5 |
| Electives | | |
| Elective Courses (p. 328) | | 5 |
| Total Credits/Units | | 100-101 |

¹ CMST&220 is strongly recommended.

² Students can apply up to six credits/units in statistics coursework toward the natural sciences requirement.

Notes

Basic Requirements

Communication Skills

ENGL&102 is required at Eastern Washington University.

Distribution Requirements

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. Five credits in world languages may apply to the Humanities requirement.

CMST&220 is specifically required for WSUV business transfer.

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.

Major Requirements

Business Courses

Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, and Whitworth.

The following institutions do not require a lower division Business Law course and agree to accept the course taken as part of this degree as a lower division elective, but generally not as an equivalent to the course required at the upper division: Heritage, PLU, SU, and Walla Walla University.

International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in U.S. business law.

Electives

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:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Demonstrate and clearly explain 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)
- Apply communication theory to demonstrate effective oral communication skills. (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) (p. 43)
- Business Technology Specialist (AAT) (p. 43)

Office Software Applications (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

Students will be required to work part-time in an office during their last term.

Students must maintain a cumulative grade point average of 2.00 to receive this certificate.

| Code | Title | Credits/ Units |
|---|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 107 | BUSINESS ENGLISH | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| Subtotal | | 3 |
| BTEC Core Requirements | | |
| BTEC 101 or BTEC 103 | BEGINNING KEYBOARDING REFRESHER KEYBOARDING | 1-3 |
| BTEC 114 | INTRODUCTION TO OUTLOOK | 1 |
| BTEC 120 | INTRODUCTION TO WORD | 3 |
| BTEC 131 | FILING AND RECORDS MANAGEMENT | 3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| Additional Major Area Requirements | | |
| BTEC 141 or BTEC 143 or BTEC 145 | BUSINESS TECHNOLOGY SEMINAR BUSINESS TECHNOLOGY SEMINAR BUSINESS TECHNOLOGY SEMINAR | |
| BTEC 199 | COOPERATIVE WORK EXPERIENCE | 3 |

| | | |
|-------------------------|---|----|
| BTEC 155 | INTRODUCTION TO OFFICE PUBLISHING TOOLS | 3 |
| BTEC 165 | POWERPOINT PRESENTATION | 3 |
| BTEC 180 or CTEC 180 | ACCESS FOR BUSINESS | 3 |
| BTEC 207 | INTRODUCTION TO SHAREPOINT | 3 |
| CTEC 101 | COMPUTING ESSENTIALS | 2 |
| CTEC 130 | MICROSOFT WINDOWS OS FUNDAMENTALS | 3 |
| Total Credits/Units | | 47 |

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- Use common office software to solve problems and present the results in a 'business ready' manner.

Business Technology Specialist (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|-----------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 107 | BUSINESS ENGLISH | 5 |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| <i>Human Relations</i> | | |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |

| | | |
|--|---|-----------|
| or CMST&230 SMALL GROUP COMMUNICATION | | |
| BTEC Core Requirements | | |
| BTEC 101 | BEGINNING KEYBOARDING | 1-3 |
| or BTEC 103 REFRESHER KEYBOARDING | | |
| BTEC 120 | INTRODUCTION TO WORD | 3 |
| BTEC 131 | FILING AND RECORDS MANAGEMENT | 3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| BTEC 114 | INTRODUCTION TO OUTLOOK | 1 |
| Additional Major Area Requirements ¹ | | |
| BTEC 141 | BUSINESS TECHNOLOGY SEMINAR | 2 |
| or BTEC 143 BUSINESS TECHNOLOGY SEMINAR | | |
| or BTEC 145 BUSINESS TECHNOLOGY SEMINAR | | |
| BTEC 199 | COOPERATIVE WORK EXPERIENCE | 3 |
| BTEC 155 | INTRODUCTION TO OFFICE PUBLISHING TOOLS | 3 |
| BTEC 165 | POWERPOINT PRESENTATION | 3 |
| BTEC 180 | ACCESS FOR BUSINESS | 3 |
| BTEC 207 | INTRODUCTION TO SHAREPOINT | 3 |
| CTEC 101 | COMPUTING ESSENTIALS | 2 |
| CTEC 130 | MICROSOFT WINDOWS OS FUNDAMENTALS | 3 |
| Additional Major Area Requirements | | |
| BTEC 211 | ADMINISTRATIVE PROCEDURES | 5 |
| BUS& 101 | INTRODUCTION TO BUSINESS | 5 |
| CTEC 131 | MICROSOFT NETWORKING FUNDAMENTALS | 3 |
| CTEC 106 | INFORMATION TECHNOLOGY FUNDAMENTALS | 5 |
| Electives | | |
| Select a minimum 18 credits/units from the following: ² | | 18 |
| BUS 211 | BUSINESS COMMUNICATIONS | |
| CTEC 103 | INTRODUCTION TO MAC/OS | |
| CTEC 200 | HELP DESK TECHNICIAN I | |
| ECON 101 | INTRODUCTION TO ECONOMICS | |
| CHEM&141 & CHEM&151 | GENERAL CHEMISTRY I and GENERAL CHEMISTRY LABORATORY I | |
| CMST 216 | INTERCULTURAL COMMUNICATION | |
| HIST&146 | UNITED STATES HISTORY I | |
| MATH 102 | COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION | |
| or MATH 103 COLLEGE TRIGONOMETRY | | |
| PHIL&117 | TRADITIONAL LOGIC | |
| or PHIL&120 SYMBOLIC LOGIC | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| Total Credits/Units | | 90 |

¹ From Cert. of Proficiency

² 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.

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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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.

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

BUSINESS/APPLIED MANAGEMENT

The Bachelor of Applied Science (BAS) in Applied Management is a two-year, 90-credit program that combines technical and academic courses. This degree is designed for professional and technical education (PTE) students, to qualify them for the program with a junior standing, after completing an associate degree. The BAS in Applied Management program combines 300-and 400-level general education and managerial courses, to prepare technically skilled students to enter their respective career fields with a bachelor's degree, allowing them to obtain managerial-level positions or to start their own businesses.

Application Process & Preliminary Requirements

Preliminary requirements must be satisfied to qualify to apply prior to program entry. Clark College reserves the right to determine admissions status. Please note: completion of the preliminary requirements does not guarantee entrance into the Bachelor of Applied Science in Applied Management Program.

To meet preliminary program entrance requirements, candidates must:

- Complete an associate degree (90 credits or higher) or higher from an accredited domestic college or university, or international equivalent, with a minimum cumulative GPA of 2.0.
- Complete the following preliminary courses with a 2.0 grade point average or above:
 1. Communication skills (5 credits required)
 - a. English Composition, 100 college-level or higher
 2. Computer Literacy (3-5 credits required)
 - a. BTEC 149 or BTEC 150 or an equivalent computer literacy course
 3. College-level Math (5 credits required)
 - a. MATH&146 Introduction to Statistics or equivalent math course(s)
 4. A minimum of 30 credits of general education requirements, with a minimum of 5 credits in each of the following areas:
 - a. communication studies,
 - b. quantitative skills,
 - c. humanities,
 - d. social science, and
 - e. natural science
- Submit 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. If you earned your degree or all your credits from Clark College, you do not need to include a transcript.
- Apply to the program by completing the Clark College application packet for BAS in Applied Management. Submit the packet to the Clark College Enrollment Services in Gaiser Hall before the enrollment deadline, along with the non-refundable program application fee.

Upon completion of the preliminary requirements, all qualified applicants will be notified in writing of final acceptance into the program. The payment of a non-refundable deposit will reserve a position for the

program's next entry date. Students not selected for entry are welcome to reapply for the next cohort start date but are encouraged to seek advising before doing so. Students must formally comply with the published application and admission criteria for that year and cohort.

Selective criteria and current fee amounts are subject to change.

For complete, updated information, please visit the Applied Management (BAS) website (<http://www.clark.edu/academics/programs/basam>).

- Bachelor of Applied Science in Applied Management (BAS) (p. 45)

Bachelor of Applied Science in Applied Management (BAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| CMST 310 | ORGANIZATIONAL COMMUNICATION | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| PSYC 315 | ORGANIZATIONAL BEHAVIOR | 5 |
| Subtotal | | 5 |
| <i>Social Sciences</i> | | |
| ECON 405 | MANAGERIAL AND GLOBAL ECONOMICS | 5 |
| Subtotal | | 5 |
| <i>Humanities</i> | | |
| PHIL 420 | ETHICS IN MANAGEMENT | 5 |
| Subtotal | | 5 |
| <i>Natural Science</i> | | |
| ENVS 430 | SUSTAINABILITY & ENVIRONMENTAL PRACTICES | 5 |
| Major Area Requirements | | |
| BASAM301 | FOUNDATIONS OF MANAGEMENT | 5 |
| BASAM305 | SOCIAL MEDIA IN BUSINESS | 5 |
| BASAM320 | BUSINESS RESEARCH APPLICATIONS | 5 |
| BASAM325 | BUSINESS PRINCIPLES | 5 |
| BASAM330 | ACCOUNTING PRINCIPLES FOR MANAGERS | 5 |
| BASAM335 | LEGAL ISSUES IN MANAGEMENT | 5 |
| BASAM340 | MARKETING FOR MANAGERS | 5 |
| BASAM400 | HUMAN RESOURCE MANAGEMENT | 5 |
| BASAM410 | PROJECT MANAGEMENT | 5 |
| BASAM415 | FINANCIAL MANAGEMENT | 5 |
| BASAM425 | OPERATIONS AND LOGISTICS | 5 |
| BASAM440 | CAPSTONE: STRATEGIC MANAGEMENT & POLICY | 5 |
| BASAM450 | APPLIED MANAGEMENT INTERNSHIP | 5 |
| Total ¹ | | 90 |

¹ Please note that in addition to the 90 credits required in upper division courses a student must have completed 90 additional credits from an associate degree for a total of 180 credits.

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:

- Describe the complexities that affect successful trading in domestic and global markets, utilizing information, data, and technologies to support effective decision making.
- Recognize and apply effective communication strategies, appropriate to organizational settings.
- Analyze and apply managerial functions, roles, styles, and effective strategies for stability and change, to be used in various managerial and leadership situations.
- Analyze legal issues for risk management and responsible oversight.
- Interpret financial models for business decision-making to support organizational goals.
- Evaluate and develop organizational structures and operating procedures to foster continuous improvement, innovation, and quality results.
- Balance theoretical and practical strategies and policies for a productive, quality, and motivated workforce, including managing diversity, ethics, and social responsibility.
- Develop and apply a marketing strategy, based on an integrated marketing plan, to produce and distribute products at optimum operational levels.

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) (p. 47)
- Supervisory Management (AAS) (p. 47)

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.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 106 | APPLIED OFFICE ENGLISH | 3 |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| <i>Human Relations</i> | | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| Business Core Courses | | |
| BUS 028 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS& 101 | INTRODUCTION TO BUSINESS | 5 |
| BTEC 100 | KEYBOARDING | 1-3 |
| BTEC 150 | COMPUTER BUSINESS APPLICATIONS | 5 |
| ECON 101 | INTRODUCTION TO ECONOMICS | 3 |

| | | |
|--|--|-----|
| MGMT 101 | PRINCIPLES OF MANAGEMENT | 3 |
| Major Area Requirements | | |
| MGMT 103 | APPLIED MANAGEMENT SKILLS | 3 |
| MGMT 110 | CREATIVE PROBLEM SOLVING | 3 |
| MGMT 128 | HUMAN RESOURCES MANAGEMENT | 3 |
| MGMT 199 | COOPERATIVE WORK EXPERIENCE ¹ | 1-5 |
| Additional Area Requirements | | |
| Select a minimum of nine credits/units from the Management courses | | 9 |
| Total Credits/Units | | 56 |

¹ Minimum of five credits/units must be earned in Cooperative Work Experience.

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

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Effectively manage people and resources to meet organizational and institutional 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.

Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| CMST&220 | PUBLIC SPEAKING | 5 |
| | or CMST&230 SMALL GROUP COMMUNICATION | |
| Subtotal | | 5 |
| <i>Health and Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Human Relations</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Social Science</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| Major Area Requirements | | |
| BUS 029 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS& 201 | BUSINESS LAW | 5 |
| BUS 211 | BUSINESS COMMUNICATIONS | 3 |
| | or MGMT 107 SUPERVISORY COMMUNICATION I, WRITTEN | |
| MGMT 103 | APPLIED MANAGEMENT SKILLS | 3 |
| MGMT 126 | PROJECT MANAGEMENT | 4 |
| MGMT 128 | HUMAN RESOURCES MANAGEMENT | 3 |
| MGMT 133 | PRODUCTION AND OPERATIONS MANAGEMENT | 3 |
| Additional Major Area Electives | | |
| Complete a minimum of five to six additional credits/units from the following areas: | | 5-6 |
| Accounting (ACCT) (p. 143) | | |
| Business Administration (BUS) (p. 163) | | |
| Economics (ECON) (p. 201) | | |
| Supervisory Management (MGMT) (p. 234) | | |
| Computer Applications (BTEC) (p. 165) ¹ | | |
| Complete as many General Elective (GE) courses as needed to reach the total of 90 credits/units required by the degree | | |
| Total Credits/Units | | 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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Design a comprehensive management project with given criteria, using software.
- Describe the U.S. legal system and the legal environment of business by outlining the basic principles of law that apply to business transactions.
- Apply the understanding of human resource issues and functions, identifying applicable laws.
- Communicate effectively using business terminology in written and verbal language.
- Effectively manage people and resources to meet organizational and institutional goals.
- Apply techniques to improve production and to decrease waste.

¹ Six credits/units maximum.

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) (p. 49)

Chemistry (AST1)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities & Social Sciences</i> | | |
| Select one from the following: | | 5 |
| CMST&210 | INTERPERSONAL COMMUNICATION | |
| CMST&220 | PUBLIC SPEAKING | |
| CMST&230 | SMALL GROUP COMMUNICATION ¹ | |
| Course Options (p. 326) | | 10 |
| Subtotal | | 15 |

Pre-Major Program Requirements

| | | |
|------------------------|--|---|
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&142 | GENERAL CHEMISTRY II | 4 |
| CHEM&143 | GENERAL CHEMISTRY III | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | 1 |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | 2 |
| PHYS&241 & PHYS&231 | ENGINEERING PHYSICS I and ENGINEERING PHYSICS LAB I | 5 |
| PHYS&242 & PHYS&232 | ENGINEERING PHYSICS II and ENGINEERING PHYSICS LAB II | 5 |
| PHYS&243 & PHYS&233 | ENGINEERING PHYSICS III and ENGINEERING PHYSICS LAB III | 5 |

Science Electives

| | | |
|----------|----------------------------------|---|
| CHEM&241 | ORGANIC CHEMISTRY I | 4 |
| CHEM&242 | ORGANIC CHEMISTRY II | 4 |
| CHEM&243 | ORGANIC CHEMISTRY III | 4 |
| CHEM&251 | ORGANIC CHEMISTRY LABORATORY I | 1 |
| CHEM&252 | ORGANIC CHEMISTRY LABORATORY II | 1 |
| CHEM&253 | ORGANIC CHEMISTRY LABORATORY III | 2 |

Other Electives

| | | |
|--------------------------------|------------------------|-----|
| Select one from the following: | | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | |
| ENGL&235 | TECHNICAL WRITING | |
| MATH 111 | COLLEGE ALGEBRA | 5 |
| MATH 221 | DIFFERENTIAL EQUATIONS | 5 |
| MATH&254 | CALCULUS IV | 5 |
| Foreign Language ² | | |
| Total Credits/Units | | 100 |

¹ CMST&230 would count as a social science; otherwise, the third course needs to be a social science.

² Please check with the transfer institution regarding foreign language 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:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.

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 prepare 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) (p. 51)
- Architectural Computer-Aided Drafting/Design (AAS) (p. 52)
- Civil Computer-Aided Drafting/Design (CP) (p. 52)
- Civil Computer-Aided Drafting/Design (AAS) (p. 53)
- Mechanical Computer-Aided Drafting/Design (CP) (p. 54)
- Mechanical Computer-Aided Drafting/Design (AAS) (p. 55)

Architectural Computer-Aided Drafting/Design (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&235 | TECHNICAL WRITING | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| HDEV 198 | PORTFOLIO DEVELOPMENT | 1 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| CADD 101 | CADD ORIENTATION | 1 |
| CADD 102 | CADD CAREERS | 1 |
| CADD 110 | BASIC SKETCHUP | 4 |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| CADD 141 | ARCHITECTURAL DRAFTING 1 | 4 |
| CADD 142 | INTERMEDIATE AUTOCAD | 2 |
| CADD 170 | BASIC REVIT: RESIDENTIAL | 4 |
| CADD 171 | REVIT: COMMERCIAL | 4 |
| CADD 199 | COOPERATIVE WORK EXPERIENCE | 1-6 |
| CADD 207 | PRESENTATION GRAPHICS | 4 |
| CADD 210 | ARCHITECTURAL DRAFTING 2 | 3 |
| CADD 214 | AUTOCAD CUSTOMIZATION | 3 |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | 2 |
| Total Credits/Units | | 54 |

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (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).

Architectural Computer-Aided Drafting/Design (AAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|-----------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&235 | TECHNICAL WRITING | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| HDEV 198 | PORTFOLIO DEVELOPMENT | 1 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |
| Subtotal | | 3 |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) ¹ | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| CADD 101 | CADD ORIENTATION | 1 |
| CADD 102 | CADD CAREERS | 1 |
| CADD 110 | BASIC SKETCHUP | 4 |
| CADD 120 | BASIC RHINOCEROS | 4 |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| CADD 141 | ARCHITECTURAL DRAFTING 1 | 4 |
| CADD 142 | INTERMEDIATE AUTOCAD | 2 |
| CADD 170 | BASIC REVIT: RESIDENTIAL | 4 |
| CADD 171 | REVIT: COMMERCIAL | 4 |
| CADD 199 | COOPERATIVE WORK EXPERIENCE | 1-6 |
| CADD 207 | PRESENTATION GRAPHICS | 4 |
| CADD 210 | ARCHITECTURAL DRAFTING 2 | 3 |
| CADD 214 | AUTOCAD CUSTOMIZATION | 3 |

| | | |
|--|---|----|
| CADD 299 | CADD CAPSTONE PRACTICUM | 5 |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | 2 |
| ART 104 | OBSERVATIONAL DRAWING | 4 |
| Select an additional four credits/units required from the following: | | 4 |
| ART 115 | TWO-DIMENSIONAL DESIGN | |
| ART 117 | THREE-DIMENSIONAL DESIGN | |
| CGT 101 | PHOTOSHOP RASTER GRAPHICS | |
| CGT 102 | ILLUSTRATOR VECTOR GRAPHICS | |
| CGT 103 | INDESIGN PAGE LAYOUT | |
| Total Credits/Units | | 90 |

¹ Must earn five credits/units from PHYS, PHSC, or ENVS courses.

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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- 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 (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&235 | TECHNICAL WRITING | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| HDEV 198 | PORTFOLIO DEVELOPMENT | 1 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| CADD 101 | CADD ORIENTATION | 1 |
| CADD 102 | CADD CAREERS | 1 |
| CADD 130 | BASIC MICROSTATION | 4 |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| CADD 142 | INTERMEDIATE AUTOCAD | 2 |
| CADD 143 | CIVIL DRAFTING 1 WITH CIVIL 3D | 4 |
| CADD 170 | BASIC REVIT: RESIDENTIAL | 4 |
| CADD 171 | REVIT: COMMERCIAL | 4 |
| CADD 199 | COOPERATIVE WORK EXPERIENCE ¹ | 1-6 |
| CADD 207 | PRESENTATION GRAPHICS | 4 |
| CADD 214 | AUTOCAD CUSTOMIZATION | 3 |
| CADD 230 | CIVIL DRAFTING 2 | 3 |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | 2 |
| SURV 102 | FUNDAMENTALS OF SURVEY | 2 |
| Total Credits/Units | | 56 |

¹ Five credits/units required.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (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.
- Fully annotate and print civil drawings (core drafting skills).

Civil Computer-Aided Drafting/Design (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&235 | TECHNICAL WRITING | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| HDEV 198 | PORTFOLIO DEVELOPMENT | 1 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) ¹ | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| CADD 101 | CADD ORIENTATION | 1 |
| CADD 102 | CADD CAREERS | 1 |
| CADD 120 | BASIC RHINOCEROS | 4 |
| CADD 130 | BASIC MICROSTATION | 4 |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| CADD 142 | INTERMEDIATE AUTOCAD | 2 |
| CADD 143 | CIVIL DRAFTING 1 WITH CIVIL 3D | 4 |
| CADD 170 | BASIC REVIT: RESIDENTIAL | 4 |
| CADD 171 | REVIT: COMMERCIAL | 4 |
| CADD 199 | COOPERATIVE WORK EXPERIENCE ² | 1-6 |

| | | |
|---------------------|---|----|
| CADD 207 | PRESENTATION GRAPHICS | 4 |
| CADD 214 | AUTOCAD CUSTOMIZATION | 3 |
| CADD 230 | CIVIL DRAFTING 2 | 3 |
| CADD 299 | CADD CAPSTONE PRACTICUM | 5 |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | 2 |
| SURV 102 | FUNDAMENTALS OF SURVEY | 2 |
| SURV 125 | INTRODUCTION TO GIS | 3 |
| SURV 250 | ARC GIS I | 3 |
| Total Credits/Units | | 90 |

¹ Must earn five credits/units from PHYS, PHSC, or ENVS courses.

² Five credits/units required.

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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- 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 (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------------|---|-------------------|
| General Education Requirement | | |
| <i>Communication Skills</i> | | |
| ENGL&235 | TECHNICAL WRITING | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| HDEV 198 | PORTFOLIO DEVELOPMENT | 1 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| CADD 101 | CADD ORIENTATION | 1 |
| CADD 102 | CADD CAREERS | 1 |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| CADD 142 | INTERMEDIATE AUTOCAD | 2 |
| CADD 150 | BASIC SOLIDWORKS | 4 |
| or ENGR 150 | BASIC SOLIDWORKS | |
| CADD 154 | MECHANICAL DRAFTING 1 WITH SOLIDWORKS | 4 |
| CADD 155 | INTERMEDIATE SOLIDWORKS - TOP DOWN DESIGN | 4 |
| CADD 160 | INTRODUCTION TO CAM | 2 |
| CADD 199 | COOPERATIVE WORK EXPERIENCE ¹ | 1-6 |
| CADD 207 | PRESENTATION GRAPHICS | 4 |
| CADD 215 | TECHNICAL STATICS & STRENGTHS | 3 |
| CADD 216 | INTEGRATED COMPUTATIONAL DESIGN | 3 |
| CADD 240 | MECHANICAL DRAFTING 2 | 3 |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | 2 |
| ENGR 115 | GEOMETRIC DIMENSIONING AND TOLERANCING | 2 |
| Total Credits/Units | | 57 |

¹ Five credits/units required.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (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.
- Create and manipulate mechanical drawings and models in a multitude of CADD applications (core CADD skills).

Mechanical Computer-Aided Drafting/Design (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|---------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&235 | TECHNICAL WRITING | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| HDEV 198 | PORTFOLIO DEVELOPMENT | 1 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) ¹ | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| CADD 101 | CADD ORIENTATION | 1 |
| CADD 102 | CADD CAREERS | 1 |
| CADD 120 | BASIC RHINOCEROS | 4 |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| CADD 142 | INTERMEDIATE AUTOCAD | 2 |
| CADD 150 | BASIC SOLIDWORKS | 4 |
| or ENGR 150 | BASIC SOLIDWORKS | |
| CADD 154 | MECHANICAL DRAFTING 1 WITH SOLIDWORKS | 4 |

| | | |
|---------------------|---|-----|
| CADD 155 | INTERMEDIATE SOLIDWORKS - TOP DOWN DESIGN | 4 |
| CADD 160 | INTRODUCTION TO CAM | 2 |
| CADD 199 | COOPERATIVE WORK EXPERIENCE ² | 1-6 |
| CADD 207 | PRESENTATION GRAPHICS | 4 |
| CADD 215 | TECHNICAL STATICS & STRENGTHS | 3 |
| CADD 216 | INTEGRATED COMPUTATIONAL DESIGN | 3 |
| CADD 240 | MECHANICAL DRAFTING 2 | 3 |
| CADD 299 | CADD CAPSTONE PRACTICUM | 5 |
| ENGR&104 | INTRODUCTION TO DESIGN | 5 |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | 2 |
| ENGR 115 | GEOMETRIC DIMENSIONING AND TOLERANCING | 2 |
| Total Credits/Units | | 90 |

¹ Must earn five credits/units from PHYS, PHSC, or ENVIS courses.

² Five credits/units required.

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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- 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 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) (p. 56)
- Web Design (CP) (p. 57)
- Web & Graphic Design (AAT) (p. 57)

Graphic Design (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| <i>Computational Skills</i> | | |

| | | |
|-------------------------------------|---|-----|
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| <i>Human Relations</i> | | |
| Select one from the following: | | |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| CMST&230 | SMALL GROUP COMMUNICATION | |
| BUS& 101 | INTRODUCTION TO BUSINESS | |
| SOC& 101 | INTRO TO SOCIOLOGY | |
| Major Area Requirements | | |
| <i>Fine Art Foundations</i> | | |
| ART 103 | DRAWING I | 3 |
| ART 110 | CREATIVITY AND CONCEPT | 3 |
| ART 115 | TWO-DIMENSIONAL DESIGN | 4 |
| ART 145 | DIGITAL PHOTOGRAPHY I | 3 |
| <i>Computer Graphics Technology</i> | | |
| CGT 101 | PHOTOSHOP RASTER GRAPHICS | 4 |
| CGT 102 | ILLUSTRATOR VECTOR GRAPHICS | 4 |
| CGT 103 | INDESIGN PAGE LAYOUT | 4 |
| <i>Graphic Design</i> | | |
| ART 172 | GRAPHIC DESIGN EXPLORATION | 3 |
| ART 173 | GRAPHIC DESIGN STUDIO I | 4 |
| ART 174 | TYPOGRAPHY | 4 |
| ART 208 | DIGITAL ILLUSTRATION | 4 |
| ART 215 | PORTFOLIO DEVELOPMENT | 3 |
| ART 270 | PUBLICATION PRODUCTION | 1-9 |
| ART 271 | PUBLICATION DESIGN | 4 |
| ART 273 | GRAPHIC DESIGN STUDIO II | 4 |
| Select one from the following: | | |
| CGT 214 | PROFESSIONAL PRACTICES | 4 |
| CGT 240 | CAPSTONE PRACTICUM | |
| CGT 199 | COOPERATIVE WORK EXPERIENCE ¹ | |
| Total Credits/Units | | 73 |

¹ Four credits/units required.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (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.
- Implement tools and technology to realize visual ideas.

Web Design (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| Select one from the following: | | 5 |
| CMST&210 | INTERPERSONAL COMMUNICATION | |
| CMST&230 | SMALL GROUP COMMUNICATION | |
| BUS& 101 | INTRODUCTION TO BUSINESS | |
| SOC& 101 | INTRO TO SOCIOLOGY | |
| Subtotal | | 5 |
| Major Area Requirements | | |
| <i>Fine Art Foundations</i> | | |
| ART 110 | CREATIVITY AND CONCEPT | 3 |
| ART 115 | TWO-DIMENSIONAL DESIGN | 4 |
| ART 118 | TIME-BASED ART AND DESIGN | 4 |
| <i>Computer Graphics Technology</i> | | |
| CGT 101 | PHOTOSHOP RASTER GRAPHICS | 4 |
| CGT 102 | ILLUSTRATOR VECTOR GRAPHICS | 4 |
| CGT 104 | WEB MULTIMEDIA CONTENT I | 4 |
| CGT 201 | WEB VIDEO PRODUCTION | 4 |
| <i>Graphic Design</i> | | |

| | | |
|--------------------------------|--|----|
| ART 215 | PORTFOLIO DEVELOPMENT | 3 |
| <i>Web Design</i> | | |
| CTEC 122 | HTML FUNDAMENTALS | 4 |
| CTEC 160 | WORDPRESS I | 5 |
| CGT 105 | USER EXPERIENCE DESIGN | 4 |
| CGT 106 | SOCIAL MEDIA EXPLORATION | 3 |
| CGT 205 | WEB DESIGN I | 4 |
| CGT 206 | WEB DESIGN II | 4 |
| Select one from the following: | | 4 |
| CGT 214 | PROFESSIONAL PRACTICES | |
| CGT 240 | CAPSTONE PRACTICUM | |
| CGT 199 | COOPERATIVE WORK EXPERIENCE (4 credits/ units required) | |
| Total Credits/Units | | 73 |

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- 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)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| <i>Human Relations</i> | | |
| Select one from the following: | | 5 |
| CMST&210 | INTERPERSONAL COMMUNICATION | |
| CMST&230 | SMALL GROUP COMMUNICATION | |
| BUS& 101 | INTRODUCTION TO BUSINESS | |
| SOC& 101 | INTRO TO SOCIOLOGY | |
| Major Area Requirements | | |
| <i>Fine Art Foundations</i> | | |
| ART 110 | CREATIVITY AND CONCEPT | 3 |
| ART 115 | TWO-DIMENSIONAL DESIGN | 4 |
| ART 118 | TIME-BASED ART AND DESIGN | 4 |
| <i>Computer Graphics Technology</i> | | |
| CGT 101 | PHOTOSHOP RASTER GRAPHICS | 4 |
| CGT 102 | ILLUSTRATOR VECTOR GRAPHICS | 4 |
| CGT 103 | INDESIGN PAGE LAYOUT | 4 |
| CGT 104 | WEB MULTIMEDIA CONTENT I | 4 |
| CGT 201 | WEB VIDEO PRODUCTION | 4 |
| <i>Graphic Design</i> | | |
| ART 172 | GRAPHIC DESIGN EXPLORATION | 3 |
| ART 173 | GRAPHIC DESIGN STUDIO I | 4 |
| ART 174 | TYPOGRAPHY | 4 |
| ART 215 | PORTFOLIO DEVELOPMENT | 3 |
| ART 271 | PUBLICATION DESIGN | 4 |
| ART 270 | PUBLICATION PRODUCTION | 1-9 |
| ART 273 | GRAPHIC DESIGN STUDIO II | 4 |
| <i>Web Design</i> | | |
| CTEC 160 | WORDPRESS I | 5 |
| CTEC 122 | HTML FUNDAMENTALS | 4 |
| CGT 105 | USER EXPERIENCE DESIGN | 4 |
| CGT 106 | SOCIAL MEDIA EXPLORATION | 3 |
| CGT 205 | WEB DESIGN I | 4 |
| CGT 206 | WEB DESIGN II | 4 |
| Select one from the following: | | 4 |
| CGT 214 | PROFESSIONAL PRACTICES | |
| CGT 240 | CAPSTONE PRACTICUM | |

¹ Four credits/units required.

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- 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) (p. 59)

Computer Science (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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 may be needed to satisfy graduation requirements for the Associate in Science degree (<https://catalog.clark.edu/academic-plans/track-2-ast2/general>).

| Code | Title | Credits/ Units |
|--|-----------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |

| | | |
|--|--|-----------|
| Course Options (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities & Social Science</i> | | |
| Select 15 credits/units from the following: ¹ | | 15 |
| Humanities Course Options (p. 326) | | |
| Social Science Course Options (p. 327) | | |
| Subtotal | | 15 |
| Pre-Major Program Requirements | | |
| MATH&153 | CALCULUS III | 5 |
| PHYS&241 & PHYS&231 | ENGINEERING PHYSICS I and ENGINEERING PHYSICS LAB I | 5 |
| PHYS&242 & PHYS&232 | ENGINEERING PHYSICS II and ENGINEERING PHYSICS LAB II | 5 |
| PHYS&243 & PHYS&233 | ENGINEERING PHYSICS III and ENGINEERING PHYSICS LAB III | 5 |
| Additional Science | | 5 |
| Computer Science Electives | | |
| Complete as many courses as needed to reach the total 90 credits required by the degree: | | |
| CSE 120 | INTRO TO ELECTRICAL/COMPUTING | 5 |
| CSE 121 | INTRODUCTION TO C | 5 |
| CSE 222 | INTRODUCTION TO DATA STRUCTURES | 5 |
| CSE 223 | DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMIN | 5 |
| CSE 224 | PROGRAMMING TOOLS | 5 |
| ENGR&204 | ELECTRICAL CIRCUITS | 5 |
| ENGR 250 | DIGITAL LOGIC DESIGN | 5 |
| ENGR 270 | DIGITAL SYSTEMS AND MICROPROCESSORS | 5 |
| MATH 215 | LINEAR ALGEBRA | 5 |
| Total Credit/Units | | 90 |

¹ HA, HB, SS

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:

- 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.

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

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.

- Information Technology Skills (CP) (p. 61)
- Computer Support (AAT) (p. 61)
- Web Development (AAT) (p. 62)

Information Technology Skills (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--|-------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills (3 credits required)</i> | | |

| | | |
|--|---|---------------------------|
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| <i>Computational Skills (3 credits required)</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Or completed MATH course with 'C' or better where prerequisites are MATH 092 or higher | | |
| <i>Human Relations (3 credits required)</i> | | |
| CTEC 104 | IT SUPPORT | 3 |
| or HDEV 200 | PROFESSIONAL DEVELOPMENT | |
| Code | Title | Credits/ Units |
| Major Area Requirements | | |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| CTEC 106 | INFORMATION TECHNOLOGY FUNDAMENTALS | 5 |
| CTEC 111 | POWERSHELL FUNDAMENTAS | 3 |
| CTEC 115 | INTERNET RESEARCH AND LIVING ONLINE | 2 |
| CTEC 130 | MICROSOFT WINDOWS OS FUNDAMENTALS | 3 |
| CTEC 131 | MICROSOFT NETWORKING FUNDAMENTALS | 3 |
| CTEC 205 | INTRODUCTION TO MANAGED INFORMATION SYSTEMS | 5 |
| CTEC 213 | COMPTIA A+ FUNDAMENTALS | 4 |
| CTEC 214 | COMPTIA A+ OPERATING SYSTEMS & NETWORKING | 4 |
| NTEC 103 | IP SUBNETTING | 3 |
| Total | | 51 |

Computer Support (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |

or completed MATH course with 'C' or better where prerequisite requirements are MATH 096 or higher

Human Relations

| | | |
|-------------|---|---|
| CTEC 104 | IT SUPPORT | 3 |
| COLL 101 | COLLEGE ESSENTIALS: INTRODUCTION TO CLARK | 2 |
| or HDEV 200 | PROFESSIONAL DEVELOPMENT | |

| Code | Title | Credits/ Units |
|------|-------|-------------------|
|------|-------|-------------------|

Major Area Requirements

| | | |
|-------------|--|----|
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| CTEC 106 | INFORMATION TECHNOLOGY FUNDAMENTALS | 5 |
| CTEC 115 | INTERNET RESEARCH AND LIVING ONLINE | 2 |
| CTEC 111 | POWERSHELL FUNDAMENTALS | 3 |
| CTEC 112 | PROGRAMMING ESSENTIALS | 5 |
| or CTEC 121 | INTRO TO PROGRAMMING & PROBLEM SOLVING | |
| CTEC 130 | MICROSOFT WINDOWS OS FUNDAMENTALS | 3 |
| CTEC 131 | MICROSOFT NETWORKING FUNDAMENTALS | 3 |
| CTEC 133 | MICROSOFT SECURITY FUNDAMENTALS | 5 |
| CTEC 200 | HELP DESK TECHNICIAN I | 3 |
| CTEC 201 | HELP DESK TECHNICIAN II | 3 |
| or CTEC 199 | COOPERATIVE WORK EXPERIENCE | |
| CTEC 205 | INTRODUCTION TO MANAGED INFORMATION SYSTEMS | 5 |
| CTEC 213 | COMPTIA A+ FUNDAMENTALS | 4 |
| CTEC 214 | COMPTIA A+ OPERATING SYSTEMS & NETWORKING | 4 |
| CTEC 233 | COMPTIA SECURITY+ | 5 |
| CTEC 235 | COMPTIA CYBERSECURITY | 5 |
| NTEC 103 | IP SUBNETTING | 3 |
| NTEC 132 | WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS | 3 |
| NTEC 142 | CLOUD COMPUTING FUNDAMENTALS | 3 |
| NTEC 151 | LINUX ESSENTIALS | 6 |
| Total | | 94 |

Web Development (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|------|-------|-------------------|
|------|-------|-------------------|

General Education Requirements

Communication Skills

| | | |
|-------------|---|---|
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |

Computational Skills

| | | |
|----------|---|---|
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended) | 5 |
|----------|---|---|

Or completed MATH course with 'C' or better where prerequisite requirements are MATH 096 or higher

Human Relations

| | | |
|-------------|-----------------------------|---|
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| or CMST&230 | SMALL GROUP COMMUNICATION | |

Major Area Requirements

Web Foundations

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

Web Media and Supportive Technologies

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

Web Design

| | | |
|---------|------------------------|---|
| CGT 105 | USER EXPERIENCE DESIGN | 4 |
| CGT 205 | WEB DESIGN I | 4 |
| CGT 206 | WEB DESIGN II | 4 |

Web Career Preparation and Experience

| | | |
|-------------|-----------------------------|---|
| CTEC 199 | COOPERATIVE WORK EXPERIENCE | 5 |
| or CTEC 293 | WEB SKILLS PORTFOLIO | |
| CTEC 165 | BUSINESS WEB PRACTICES | 4 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |

Web Development

| | | |
|-------------|--|---|
| CTEC 112 | PROGRAMMING ESSENTIALS | 5 |
| or CTEC 121 | INTRO TO PROGRAMMING & PROBLEM SOLVING | |
| CTEC 126 | JAVASCRIPT | 5 |
| CTEC 127 | PHP WITH SQL I | 5 |
| CTEC 145 | WEB SERVER TECHNOLOGY | 5 |
| CTEC 227 | PHP WITH SQL II | 5 |
| CTEC 265 | APPLIED WEB DEVELOPMENT | 5 |
| or CTEC 135 | MICROSOFT SOFTWARE DEVELOPMENT WITH C# | |

Total Credits/Units 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:

- 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.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

CULINARY ARTS

The culinary and hospitality industries are experiencing tremendous growth. Employers all over the nation are looking for people who have not only technical skills, but also the ability to manage effectively and solve problems creatively.

At the Tod and Maxine McClaskey Culinary Institute at Clark College, we are building on nearly 60 years of excellence in culinary education to offer newly updated programs that prepare you to meet the growing demand for culinary and hospitality professionals. Our programs emphasize mastery of the fundamentals as well as management and critical thinking skills to prepare you for a range of career opportunities.

Our faculty combine their real-world experience with teaching expertise to help you master the technical, organizational, and management skills you need to stand out to potential employers. In addition, your on-campus experience will help develop skills including teamwork, customer service, merchandising, efficiency, equipment and food safety, production scheduling, and more – all key skills to prepare you for a career in the region's dynamic food and hospitality industry.

Whether you aspire to work in a restaurant, bakery, industrial kitchen, catering service, or your own small business, the McClaskey Culinary Institute will assist in preparing you for a variety of career opportunities.

- Baking and Pastry Arts Fundamentals (CA) (p. 64)
- Professional Baking & Pastry Arts Management (AAT) (p. 64)
- Cuisine Fundamentals (CA) (p. 65)
- Cuisine Management (AAT) (p. 65)

Baking and Pastry Arts Fundamentals (CA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program is built on a competency model focused on developing the fundamental knowledge, skills and abilities to work in a bakery or pastry shop environment.

| Code | Title | Credits/ Units |
|--------------------------------|--|-------------------|
| Major Area Requirements | | |
| PBAK 110 | ARTISAN BREADS | 9 |
| PBAK 111 | EARLY MORNING PRODUCT | 5 |
| PBAK 120 | VIENNOISERIE | 9 |
| PBAK 121 | COOKIES, BROWNIES, BARS AND QUICK BREADS | 5 |
| PBAK 130 | CAKES, DESSERTS AND TORTES | 9 |
| PBAK 131 | RETAIL OPERATIONS AND BARISTA | 5 |
| Total Credits/Units | | 42 |

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/847F/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 processes of baking, including concepts of ingredient cause and effect, in daily routine
- Accurately follow a formula, with notes, to completion
- Perform accurate mathematical operations appropriate to baking
- Operate commercial baking equipment and tools using standard safety and sanitation procedures
- Demonstrate accurate use of both digital and balance scales
- Demonstrate effective time management

Professional Baking & Pastry Arts Management (AAT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program of study will delve deeply into the science of baking and then apply that theoretical knowledge in a hands-on production focused lab environment. During the course of their studies students will learn all aspects of artisan breads, laminated doughs, cakes, tortes, French pastries, and merchandising. While developing these key industry competencies students will simultaneously be developing work place skills such as team work, food costing, customer service, efficiency, speed and accuracy, equipment and food safety, and production scheduling.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| PBAK 110 | ARTISAN BREADS | 9 |
| PBAK 111 | EARLY MORNING PRODUCT | 5 |
| PBAK 120 | VIENNOISERIE | 9 |
| PBAK 121 | COOKIES, BROWNIES, BARS AND QUICK BREADS | 5 |
| PBAK 130 | CAKES, DESSERTS AND TORTES | 9 |
| PBAK 131 | RETAIL OPERATIONS AND BARISTA | 5 |
| PBAK 200 | APPLIED PROFESSIONAL DEVELOPMENT | 9 |
| PBAK 210 | PRODUCTION BAKING | 9 |

| | | |
|---------------------|--|-----|
| PBAK 211 | CHOCOLATE LAB | 5 |
| PBAK 220 | PASTRY CHEF/RESTAURANT BAKING | 9 |
| PBAK 221 | RETAIL/MERCHANDISING, INVENTORY/ PURCHASING | 5 |
| PBAK 230 | CAPSTONE PROJECT | 6 |
| PBAK 231 | INDUSTRY INTERNSHIP | 4 |
| Total Credits/Units | | 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:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply processes of baking, including concepts of ingredient cause and effect, in a daily routine.
- Accurately follow a formula, with notes, to completion.
- Perform accurate mathematical operations appropriate to baking.
- Operate commercial baking equipment and tools using standard safety and sanitation procedures.
- Demonstrate accurate use of both digital and balance scales.
- Demonstrate effective time management.
- Demonstrate effective bakery management skills.

Cuisine Fundamentals (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program is designed to provide a solid foundation of necessary skills and practices for entry level employment.

| Code | Title | Credits/ Units |
|--|---------------------------------------|-------------------|
| Major Area Requirements | | |
| CUIS 110 | CULINARY FUNDAMENTALS I | 5 |
| CUIS 111 | PROFESSIONAL COOKING I | 8 |
| CUIS 120 | CULINARY FUNDAMENTALS II | 5 |
| CUIS 121 | PROFESSIONAL COOKING II | 8 |
| CUIS 130 | CULINARY FUNDAMENTALS III | 5 |
| CUIS 131 | PROFESSIONAL COOKING III | 8 |
| Subtotal | | 39 |
| Specialized Short courses | | |
| Select a minimum of four credits/units from the following: | | 4 |
| CUIS 140 | CLASSIC AND MODERN SOUPS AND SAUCES | |
| CUIS 141 | MEAT CUTTING AND FABRICATION | |
| CUIS 142 | WINE, BEER, SPIRITS AND FOOD PAIRINGS | |

| | | |
|---------------------|--|----|
| CUIS 143 | RESTAURANT BAKING | |
| CUIS 144 | BANQUET AND BUFFET PLANNING AND EXECUTION | |
| CUIS 145 | WINE APPRECIATION | |
| Total Credits/Units | | 43 |

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/850D/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 the basics of classical, modern, and healthy cooking techniques.
- Identify and describe a variety of food ingredients and specifications with focus on sustainable, organic, nutritional needs; specialty diets; and aspects of vegetarian and veganism.
- Demonstrate proper kitchen sanitation, safety and professionalism in the workplace.
- Identify and demonstrate proper use of kitchen tools and equipment.
- Demonstrate basic measuring, conversion, food costing and yield management practices.
- Demonstrate cook to order practices with American and International cuisine.
- Apply teamwork, workplace ethics, customer service and communications in the workplace.

Cuisine Management (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program prepares students for a wide variety of employment opportunities in the food service and hospitality industries. Some of these employment venues include restaurants, resorts, assisted living communities and hospital environments. This program is designed to provide a solid foundation of necessary skills and practices for entry level employment. The curriculum is delivered in a competency based format with a focus on skill development, production and customer service. In addition to skill development the curriculum also includes a focus on healthy cooking options, special dietary needs, international cuisine, food cost management, industry trends and sustainable production.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |

| | | |
|---|---|-----|
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| CUIS 110 | CULINARY FUNDAMENTALS I | 5 |
| CUIS 111 | PROFESSIONAL COOKING I | 8 |
| CUIS 120 | CULINARY FUNDAMENTALS II | 5 |
| CUIS 121 | PROFESSIONAL COOKING II | 8 |
| CUIS 130 | CULINARY FUNDAMENTALS III | 5 |
| CUIS 131 | PROFESSIONAL COOKING III | 8 |
| CUIS 200 | APPLIED PROFESSIONAL DEVELOPMENT | 9 |
| CUIS 210 | ADVANCED CULINARY FUNDAMENTALS | 5 |
| CUIS 211 | ADVANCED CULINARY PRACTICES | 8 |
| CUIS 220 | MANAGEMENT AND BANQUET THEORY | 5 |
| CUIS 221 | MANAGEMENT PRACTICES | 8 |
| CUIS 230 | CUISINE CAPSTONE | 6 |
| CUIS 231 | INDUSTRY INTERNSHIP | 4 |
| Specialized Short Courses | | |
| Select a minimum of six credits/units from the following: | | 6 |
| CUIS 140 | CLASSIC AND MODERN SOUPS AND SAUCES | |
| CUIS 141 | MEAT CUTTING AND FABRICATION | |
| CUIS 142 | WINE, BEER, SPIRITS AND FOOD PAIRINGS | |
| CUIS 143 | RESTAURANT BAKING | |
| CUIS 144 | BANQUET AND BUFFET PLANNING AND EXECUTION | |
| CUIS 145 | WINE APPRECIATION | |
| Total Credits/Units | | 105 |

- Demonstrate cook to order practices with American and International cuisine.
- Apply teamwork, workplace ethics, customer service and communications in the workplace.
- Demonstrate effective management skills.
- Demonstrate professional cooking skills and skills in menu and recipe interpretation and conversion, proper cooking methods, plating and saucing principles to carry out complete dinner and/or banquet service.
- Demonstrate advanced storeroom inventory, management, purchasing and quality control.

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply the basics of classical, modern, and healthy cooking techniques.
- Identify and describe a variety of food ingredients and specifications with focus on sustainable, organic, nutritional needs; specialty diets; and aspects of vegetarian and veganism.
- Demonstrate proper kitchen sanitation, safety and professionalism in the workplace.
- Identify and demonstrate proper use of kitchen tools and equipment.
- Demonstrate basic measuring, conversion, food costing and yield management practices.

DENTAL HYGIENE

A career as a dental hygienist offers a wide range of opportunities. Services provided by dental hygienists include patient assessment procedures, managing and treating periodontal conditions, providing pain management for patients, 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.

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.

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.

About the Program

For Financial Aid purposes, the Bachelor of Applied Science in Dental Hygiene is open enrollment which enables all students who wish to pursue this degree to complete the "Dental Hygiene Degree Requirements" (courses in the areas of English, Biological Sciences, Psychology, etc.). The "Dental Hygiene Degree Requirements" provide the foundation for the subsequent "Dental Hygiene Core" classes (classes with "DH" prefix). Due to clinical space limitations, although the program of study for the dental hygiene degree is open enrollment, there is a competitive application process for students to be able to begin the "Dental Hygiene Core" classes. The instructions in the Dental Hygiene Program Guide explain the Dental Hygiene Degree requirements and the competitive application process to be able to begin the Dental Hygiene Core classes.

The Dental Hygiene Program Guide is posted on the Dental Hygiene 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.

- Dental Hygiene (BAS) (p. 67)

Dental Hygiene (BAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|---|-------------------|
| Preliminary Coursework Required for Acceptance ¹ | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I ² | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| Humanities | | |
| Select 10 credits/units from the following: | | 10 |
| CMST&210 | INTERPERSONAL COMMUNICATION | |
| | or CMST&220 PUBLIC SPEAKING | |
| | or CMST&230 SMALL GROUP COMMUNICATION | |
| Course Options (p. 326) | | |
| Social Sciences | | |
| PSYC&100 | GENERAL PSYCHOLOGY | 5 |
| SOC& 101 | INTRO TO SOCIOLOGY | 5 |
| <i>College-level Math</i> | | |
| MATH&146 | INTRODUCTION TO STATISTICS (recommended) | 5 |
| <i>Natural Sciences</i> ³ | | |
| Select one from the following: | | 10-15 |
| BIOL&251 & BIOL&252 & BIOL&253 | HUMAN A & P I and HUMAN A & P II and HUMAN A & P III | |
| BIOL&241 & BIOL&242 | HUMAN ANATOMY AND PHYSIOLOGY I and HUMAN ANATOMY AND PHYSIOLOGY II | |
| BIOL&260 | MICROBIOLOGY | 5 |
| CHEM&121 | INTRO TO CHEMISTRY: PRE-HEALTH | 5 |
| CHEM&131 | INTRO TO ORGANIC/BIOCHEM | 5 |
| NUTR&101 | NUTRITION | 3 |
| <i>Physical Education</i> | | |
| Select one fitness/activity course (p. 326) | | 1 |
| Junior Year | | |
| <i>Fall Term</i> | | |
| DH 282 | PHARMACOLOGY I | 1 |
| DH 283 | CLINICAL DENTAL HYGIENE TECHNIQUES I | 6 |
| DH 284 | ORAL MEDICINE | 2 |
| DH 285 | PERIODONTICS I | 3 |
| DH 286 | DENTAL ANATOMY | 3 |
| DH 292 | INTRODUCTION TO DIGITAL MANAGEMENT SYSTEMS | 1 |
| <i>Winter Term</i> | | |
| DH 303 | HEAD AND NECK ANATOMY | 3 |
| DH 313 | CLINICAL DENTAL HYGIENE TECHNIQUES II | 6 |
| DH 323 | ORAL RADIOLOGY I | 3 |
| DH 353 | ETHICS AND THE PROFESSION | 1 |
| DH 373 | CARIOLOGY | 2 |
| DH 383 | PHARMACOLOGY II | 1 |
| <i>Spring Term</i> | | |

| | | |
|--------|--|---|
| DH 304 | EDUCATIONAL THEORY AND APPLICATION | 2 |
| DH 314 | CLINICAL DENTAL HYGIENE TECHNIQUES III | 6 |
| DH 324 | ORAL RADIOLOGY II | 1 |
| DH 344 | GENERAL AND ORAL PATHOLOGY | 3 |
| DH 364 | LOCAL ANESTHESIA & PAIN CONTROL | 4 |
| DH 384 | PHARMACOLOGY III | 1 |

Senior Year*Summer Term*

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

Fall Term

| | | |
|--------|---|---|
| DH 402 | DENTAL PUBLIC HEALTH - RESEARCH METHODS I | 2 |
| DH 412 | CLINICAL DENTAL HYGIENE TECHNIQUES V | 9 |
| DH 432 | RESTORATIVE DENTISTRY II | 5 |
| DH 452 | SPECIAL NEEDS POPULATIONS II | 1 |
| DH 472 | PERIODONTICS II | 2 |

Winter Term

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

Spring Term

| | | |
|--------|--|---|
| DH 404 | DENTAL PUBLIC HEALTH - RESEARCH METHODS III | 1 |
| DH 414 | CLINICAL DENTAL HYGIENE TECHNIQUES VII | 9 |
| DH 434 | RESTORATIVE DENTISTRY IV | 3 |
| DH 484 | CAPSTONE | 3 |

Total Credits/Units 181-184

- ¹ 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
- ² Must be completed by end of winter term of application year.
- ³ All science courses must be seven (7) 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:

- 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) (p. 69)
- Diesel Technologies (AAS) (p. 69)
- Diesel Technologies (AAT) (p. 70)

Diesel Technician (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended) | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&230 or CMST&210 | SMALL GROUP COMMUNICATION INTERPERSONAL COMMUNICATION | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| DIES 111 | DIESEL FUNDAMENTALS | 5 |

| | | |
|---------------------|--------------------------------------|-----|
| DIES 112 | DIESEL PROCEDURES | 10 |
| DIES 113 | DIESEL ENGINES/FUEL SYSTEMS | 5 |
| DIES 114 | DIESEL PROCEDURES | 10 |
| DIES 115 | DRIVE TRAINS | 5 |
| DIES 116 | DIESEL PROCEDURES | 10 |
| DIES 120 | BASIC ELECTRICAL | 3 |
| DIES 121 | ELECTRONIC ENGINE MANAGEMENT SYSTEMS | 3 |
| DIES 122 | ELECTRONIC VEHICLE CONTROL SYSTEMS | 3 |
| DIES 221 | ELECTRICAL/ELECTRONIC SYSTEMS | 5 |
| DIES 222 | DIESEL PROCEDURES | 6 |
| DIES 223 | HYDRAULIC SYSTEMS | 5 |
| DIES 224 | DIESEL PROCEDURES | 10 |
| DIES 225 | BRAKES, STEERING, AND SUSPENSION | 5 |
| DIES 226 | DIESEL PROCEDURES | 10 |
| Total Credits/Units | | 110 |

| Code | Title | Credits/ Units |
|---|-----------------------|-------------------|
| Suggested Extra Courses for Preparation into the Trade | | |
| BUS 110 | CUSTOMER SERVICE | 3 |
| DIES 096 | CUMMINS ENGINES | 3 |
| DIES 135 | INDUSTRIAL HYDRAULICS | 3 |

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain 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.
- Evaluate and use technical information from a variety of resources.

Diesel Technologies (AAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> ¹ | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | 5 |
| Course Options (p. 336) | | 1 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| <i>Human Relations</i> | | |
| CMST&230 or CMST&210 | SMALL GROUP COMMUNICATION INTERPERSONAL COMMUNICATION | 5 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Major Area Requirements | | |
| DIES 111 | DIESEL FUNDAMENTALS | 5 |
| DIES 112 | DIESEL PROCEDURES | 10 |
| DIES 113 | DIESEL ENGINES/FUEL SYSTEMS | 5 |
| DIES 114 | DIESEL PROCEDURES | 10 |
| DIES 115 | DRIVE TRAINS | 5 |
| DIES 116 | DIESEL PROCEDURES | 10 |
| DIES 120 | BASIC ELECTRICAL | 3 |
| DIES 121 | ELECTRONIC ENGINE MANAGEMENT SYSTEMS | 3 |
| DIES 122 | ELECTRONIC VEHICLE CONTROL SYSTEMS | 3 |
| DIES 221 | ELECTRICAL/ELECTRONIC SYSTEMS | 5 |
| DIES 222 | DIESEL PROCEDURES | 6 |
| DIES 223 | HYDRAULIC SYSTEMS | 5 |
| DIES 224 | DIESEL PROCEDURES | 10 |
| DIES 225 | BRAKES, STEERING, AND SUSPENSION | 5 |
| DIES 226 | DIESEL PROCEDURES | 10 |
| Total Credits/Units | | 123 |

¹ ENGL 097 does not meet the Communication Skills General Education Requirement for the AAS degree.

| Code | Title | Credits/ Units |
|---|-----------------------|-------------------|
| Suggested Extra Courses (for preparation into trade) | | |
| BUS 110 | CUSTOMER SERVICE | 3 |
| DIES 096 | CUMMINS ENGINES | 3 |
| DIES 135 | INDUSTRIAL HYDRAULICS | 3 |

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- 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.

Diesel Technologies (AAT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| DIES 111 | DIESEL FUNDAMENTALS | 5 |
| DIES 112 | DIESEL PROCEDURES | 10 |
| DIES 113 | DIESEL ENGINES/FUEL SYSTEMS | 5 |
| DIES 114 | DIESEL PROCEDURES | 10 |
| DIES 115 | DRIVE TRAINS | 5 |
| DIES 116 | DIESEL PROCEDURES | 10 |
| DIES 120 | BASIC ELECTRICAL | 3 |
| DIES 121 | ELECTRONIC ENGINE MANAGEMENT SYSTEMS | 3 |
| DIES 122 | ELECTRONIC VEHICLE CONTROL SYSTEMS | 3 |
| DIES 221 | ELECTRICAL/ELECTRONIC SYSTEMS | 5 |

| | | |
|---------------------|----------------------------------|-----|
| DIES 222 | DIESEL PROCEDURES | 6 |
| DIES 223 | HYDRAULIC SYSTEMS | 5 |
| DIES 224 | DIESEL PROCEDURES | 10 |
| DIES 225 | BRAKES, STEERING, AND SUSPENSION | 5 |
| DIES 226 | DIESEL PROCEDURES | 10 |
| Total Credits/Units | | 110 |

| Code | Title | Credits/ Units |
|--|-----------------------|-------------------|
| Additional Recommended Courses (for preparation into trade) | | |
| BUS 110 | CUSTOMER SERVICE | 3 |
| DIES 096 | CUMMINS ENGINES | 3 |
| DIES 135 | INDUSTRIAL HYDRAULICS | 3 |

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain 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.
- 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) (p. 72)
- Short State Early Childhood Education Certificate of Specialization-General (Statewide) (CC) (p. 72)
- Short State Certificate of Specialization-Infants and Toddlers (Statewide) (CC) (p. 73)
- Short State Certificate of Specialization-School Age Care (Statewide) (CC) (p. 73)
- Short State Certificate of Specialization-Family Child Care (Statewide) (CC) (p. 73)
- Short State Certificate of Specialization-Administration (statewide) (CC) (p. 73)
- State Early Childhood Education Certificate (Statewide) (CP) (p. 74)
- Early Childhood Education (AAS) (p. 74)
- Early Childhood Education (AAS-T) (p. 75)

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

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/Units |
|--------------------------------|-------------------------|---------------|
| Major Area Requirements | | |
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| Total Credits/Units | | 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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

| Code | Title | Credits/Units |
|--------------------------------|-------------------------|---------------|
| Major Area Requirements | | |
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| EDUC&115 | CHILD DEVELOPMENT | 5 |
| EDUC&130 | GUIDING BEHAVIOR | 3 |
| Total Credits/Units | | 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|-------------------------|-------------------|
| Major Area Requirements | | |
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| EDUC&115 | CHILD DEVELOPMENT | 5 |
| ECED&132 | INFANTS/TODDLERS CARE | 3 |
| Total Credits/Units | | 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|-------------------------|-------------------|
| Major Area Requirements | | |
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| EDUC&115 | CHILD DEVELOPMENT | 5 |
| EDUC&136 | SCHOOL AGE CARE | 3 |
| Total Credits/Units | | 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|-------------------------|-------------------|
| Major Area Requirements | | |
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| EDUC&115 | CHILD DEVELOPMENT | 5 |
| ECED&134 | FAMILY CHILD CARE | 3 |
| Total Credits/Units | | 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|----------|-------------------------|-------------------|
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| EDUC&115 | CHILD DEVELOPMENT | 5 |

| | | |
|---------------------|-----------------------|----|
| ECED&139 | ADMIN EARLY LRNG PROG | 3 |
| Total Credits/Units | | 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)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Select one from the following: | | 3-5 |
| ENGL 098 | WRITING FUNDAMENTALS | |
| ENGL 103 | ADVANCED ENGLISH COMPOSITION | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| ENGL&101 | ENGLISH COMPOSITION I | |
| ENGL&102 | ENGLISH COMPOSITION II | |
| ENGL&235 | TECHNICAL WRITING | |
| Subtotal | | 3-5 |
| Computational Skills | | |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| EDUC&150 | CHILD/FAMILY/COMMUNITY | 3 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| ECED&160 | CURRICULUM DEVELOPMENT | 5 |
| ECED&170 | ENVIRONMENTS-YOUNG CHILD | 3 |
| ECED&180 | LANG/LITERACY DEVELOP | 3 |
| ECED&190 | OBSERVATION/ASSESSMENT | 3 |
| EDUC&115 | CHILD DEVELOPMENT | 5 |
| Select one from the following: | | 3 |
| EDUC&130 | GUIDING BEHAVIOR | |
| EDUC&136 | SCHOOL AGE CARE | |
| ECED&132 | INFANTS/TODDLERS CARE | |
| ECED&134 | FAMILY CHILD CARE | |

| | | |
|---------------------|-----------------------|-------|
| ECED&139 | ADMIN EARLY LRNG PROG | 3 |
| Total Credits/Units | | 45-47 |

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- 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)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|----------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Course Options (p. 336) | | 1 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| <i>Computational Skills</i> | | |
| Select one from the following: | | 5 |
| MATH 092 | APPLIED ELEMENTARY ALGEBRA | |
| <i>Human Relations</i> | | |
| EDUC&150 | CHILD/FAMILY/COMMUNITY | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| <i>Natural Sciences</i> | | |

| | | |
|---|--|----|
| ENVS 109 | INTEGRATED ENVIRONMENTAL SCIENCE | 5 |
| Major Area Requirements | | |
| ECE 102 | SCIENCE AND MATHEMATICS FOR YOUNG CHILDREN | 3 |
| ECE 116 | LITERATURE AND STORYTELLING FOR CHILDREN | 2 |
| ECE 133 | REFLECTIVE PRACTICES IN EARLY LEARNING | 3 |
| ECE 135 | PARTNERSHIPS WITH FAMILIES IN EARLY CARE & E | 3 |
| ECE 199 & ECE 215 | COOPERATIVE WORK EXPERIENCE and EARLY CHILDHOOD SEMINAR ¹ | 5 |
| ECE 211 & ECE 212 | LEARNING EXPERIENCES FOR YOUNG CHILDREN II and LEARNING EXP FOR YOUNG CHILDREN II LAB ¹ | 6 |
| ECE 213 & ECE 214 | LEARNING EXPERIENCES FOR YOUNG CHILDREN III and LEARNING EXP FOR YOUNG CHILDREN III LAB ¹ | 6 |
| ECED&105 & ECED&120 | INTRO EARLY CHILD ED and PRACTICUM-NURTURING REL ¹ | 7 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&160 | CURRICULUM DEVELOPMENT | 5 |
| ECED&170 | ENVIRONMENTS-YOUNG CHILD | 3 |
| ECED&180 | LANG/LITERACY DEVELOP | 3 |
| ECED&190 | OBSERVATION/ASSESSMENT | 3 |
| EDUC&115 | CHILD DEVELOPMENT | 5 |
| EDUC&130 | GUIDING BEHAVIOR | 3 |
| EDUC&203 | EXCEPTIONAL CHILD | 3 |
| Additional Major Area Requirements | | |
| ECED&132 or EDUC&136 | INFANTS/TODDLERS CARE SCHOOL AGE CARE | 3 |
| Total Credits/Units | | 96 |

¹ Concurrent enrollment required.

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)

- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/Units |
|--|-----------------------------|---------------|
| General Education Requirements ¹ | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&107 | MATH IN SOCIETY | 5 |
| <i>Humanities</i> | | |
| CMST 216 | INTERCULTURAL COMMUNICATION | 10 |
| Course Options (excluding CMST) (p. 326) | | |
| <i>Social Sciences</i> | | |
| PSYC&200 | LIFESPAN PSYCHOLOGY | 10 |
| Course Options (excluding PSYC) (p. 327) | | |

Natural Sciences

| | | |
|--------------------------------|--|----|
| BIOL 164 & BIOL 165 | HUMAN BIOLOGY and HUMAN BIOLOGY LAB | 5 |
| PHSC 101 | GENERAL PHYSICAL SCIENCE | 5 |
| Major Area Requirements | | |
| ECE 100 | CHILD DEVELOPMENT: BIRTH TO SIX | 3 |
| ECE 133 | REFLECTIVE PRACTICES IN EARLY LEARNING | 3 |
| ECE 199 | COOPERATIVE WORK EXPERIENCE | 3 |
| ECE 211 | LEARNING EXPERIENCES FOR YOUNG CHILDREN II | 3 |
| ECE 212 | LEARNING EXP FOR YOUNG CHILDREN II LAB | 3 |
| ECE 213 | LEARNING EXPERIENCES FOR YOUNG CHILDREN III | 3 |
| ECE 214 | LEARNING EXP FOR YOUNG CHILDREN III LAB | 3 |
| ECE 215 | EARLY CHILDHOOD SEMINAR | 2 |
| ECED&105 | INTRO EARLY CHILD ED | 5 |
| ECED&107 | HEALTH/NUTRITION/SAFETY | 5 |
| ECED&120 | PRACTICUM-NURTURING REL | 2 |
| EDUC&130 | GUIDING BEHAVIOR | 3 |
| EDUC&150 | CHILD/FAMILY/COMMUNITY | 3 |
| ECED&160 | CURRICULUM DEVELOPMENT | 5 |
| ECED&180 | LANG/LITERACY DEVELOP | 3 |
| EDUC&203 | EXCEPTIONAL CHILD | 3 |
| Total Credits/Units | | 97 |

- 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.

¹ Note: Some general education requirements may be met by the specific requirements of the program.

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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Promoting child development and learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

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) (p. 77)

Elementary Education - Transfer to WSU Vancouver (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

Complete as Many General Electives (GE) courses as needed to reach the total 90 credits required by the degree.

| Code | Title | Credits/ Units |
|---|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative Skills</i> | | |
| MATH 122 | MATH FOR ELEMENTARY TEACHERS | 5 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 326) | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 326) | | 15 |
| <i>Social Sciences</i> | | |
| Select one from the following: | | 5 |
| GEOG&100 | INTRODUCTION TO GEOGRAPHY | |
| GEOG&102 | WORLD REGIONAL GEOGRAPHY | |
| GEOG&200 | HUMAN GEOGRAPHY | |
| GEOG 205 | PHYSICAL GEOGRAPHY | |
| GEOG&207 | ECONOMIC GEOGRAPHY | |
| Select one from the following: | | 5 |
| HIST&146 | UNITED STATES HISTORY I | |
| HIST&147 | UNITED STATES HISTORY II | |
| HIST&148 | UNITED STATES HISTORY III | |
| PSYC&200 | LIFESPAN PSYCHOLOGY | 5 |
| <i>Natural Sciences</i> | | |
| Select 18 credits/units from the following: | | 18 |
| BIOL&100 | SURVEY OF BIOLOGY | |
| GEOL&101 | INTRO PHYSICAL GEOLOGY | |
| CHEM&110 | CHEMICAL CONCEPTS W/LAB (recommended) | |
| ASTR&101 | INTRO TO ASTRONOMY (recommended) | |
| PHYS&100 | PHYSICS NON-SCI MAJORS (recommended) | |
| Program Requirements | | |
| MATH 123 | MATH FOR ELEMENTARY TEACHERS | 5 |
| MATH 124 | MATH FOR ELEMENTARY TEACHERS | 5 |
| POLS 111 | AMERICAN NATIONAL GOVERNMENT AND POLITICS | 5 |
| Select one from the following: | | 3-5 |
| ECON 101 | INTRODUCTION TO ECONOMICS | |
| ECON&201 | MICRO ECONOMICS | |
| ECON&202 | MACRO ECONOMICS | |
| <i>Complete as Many General Electives (GE) courses as needed to reach the total 90 credits required by the degree</i> | | |
| EDUC&201 | INTRODUCTION TO EDUCATION (recommended) | |
| EDUC 210 | INTRODUCTORY FIELD EXPERIENCE (recommended) | |
| HIST&126 | WORLD CIVILIZATIONS I (recommended) | |
| MATH 110 | COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION (recommended) | |
| | or MATH 111 COLLEGE ALGEBRA | |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain 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)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

ELECTRICAL AND COMPUTER 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.

- Electrical and Computer Engineering (AST2) (p. 79)

Electrical and Computer Engineering (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| Basic Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| <i>Mathematics</i> ¹ | | |
| | | 25 |
| MATH&151 | CALCULUS I | |
| MATH&152 | CALCULUS II | |
| MATH&153 | CALCULUS III | |
| MATH 215 | LINEAR ALGEBRA | |
| MATH 221 | DIFFERENTIAL EQUATIONS ² | |
| <i>Physics</i> ³ | | |
| | | 15-18 |
| PHYS&241 & PHYS&231 & PHYS 094 | ENGINEERING PHYSICS I and ENGINEERING PHYSICS LAB I and PHYSICS CALCULATIONS | |
| PHYS&242 & PHYS&232 & PHYS 095 | ENGINEERING PHYSICS II and ENGINEERING PHYSICS LAB II and PHYSICS CALCULATIONS | |
| PHYS&243 & PHYS&233 & PHYS 096 | ENGINEERING PHYSICS III and ENGINEERING PHYSICS LAB III and PHYSICS CALCULATIONS | |
| <i>Chemistry with Lab</i> | | |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| <i>Required Major Courses</i> | | |
| ENGR&204 | ELECTRICAL CIRCUITS | 5 |
| CSE 121 | INTRODUCTION TO C | 5 |
| Distribution Requirements | | |
| <i>Humanities</i> | | |
| Course Options (p. 326) | | 5 |
| <i>Social Sciences</i> | | |
| ECON&201 or ECON&202 | MICRO ECONOMICS ⁴ MACRO ECONOMICS | 5 |
| Course Options (p. 327) | | |
| Additional Credits in either Humanities or Social Sciences | | 5 |
| PHIL&120 | SYMBOLIC LOGIC (recommended) | |
| <i>Select five (5) electives as appropriate for intended major and intended baccalaureate institution:</i> | | |
| 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 Credits/Units | | 95-103 |

- ¹ Two courses at or above introductory calculus level. Third-term calculus or approved statistics course: 5 term credits/units 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.
- ² Clark requires concurrent enrollment or completion of MATH&254 with a grade of "C" or better.
- ³ Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.
- ⁴ Either ECON course is recommended, but not required

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (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)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (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.

EMERGENCY MEDICAL SERVICES

Emergency Medical Technician

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) 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) (p. 81)

Emergency Medical Technician (Accelerated) (CC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/Units |
|--------------------------------|--|---------------|
| Program Requirements | | |
| EMT 103 | EMERGENCY MEDICAL TECHNICIAN (ACCELERATED) (Accelerated) | 12 |
| Select one from the following: | | 4-5 |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY ¹ | |
| BIOL 164 & BIOL 165 | HUMAN BIOLOGY and HUMAN BIOLOGY LAB ¹ | |
| Total Credits/Units | | 16-17 |

¹ HEOC 100 or BIOL 164 & BIOL 165, must be seven years current upon program entry.

| Code | Title | Credits/Units |
|----------------------------|---|---------------|
| Recommended Courses | | |
| BMED 110 | MEDICAL TERMINOLOGY I (strongly recommended) | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II (strongly recommended) | 3 |

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) (p. 82)

Engineering (AST2)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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 may be needed to satisfy graduation requirements for the Associate in Science degree (<https://catalog.clark.edu/academic-plans/track-2-ast2/general>).

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities & Social Sciences</i> | | |
| Select 15 credits/units from the following: | | 15 |
| Humanities (HA, HB) Course Options (p. 326) | | |
| Social Sciences (SS) Course Options (p. 327) | | |
| Subtotal | | 15 |
| Pre-Major Program Requirements | | |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| MATH&153 | CALCULUS III | 5 |
| MATH 221 | DIFFERENTIAL EQUATIONS | 5 |
| MATH&254 | CALCULUS IV | 5 |
| PHYS&241 & PHYS&231 | ENGINEERING PHYSICS I and ENGINEERING PHYSICS LAB I | 5 |
| PHYS&242 & PHYS&232 | ENGINEERING PHYSICS II and ENGINEERING PHYSICS LAB II | 5 |
| PHYS&243 & PHYS&233 | ENGINEERING PHYSICS III and ENGINEERING PHYSICS LAB III | 5 |
| Elective Requirements | | |
| Complete as many General Elective (GE) courses as needed to reach the total of 90 credits/units required by the degree. ¹ | | 22 |
| CHEM&142 | GENERAL CHEMISTRY II | |
| CHEM&143 | GENERAL CHEMISTRY III | |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | |
| CSE 121 | INTRODUCTION TO C | |
| CSE 222 | INTRODUCTION TO DATA STRUCTURES | |
| ENGR 101 | ENGINEERING AND COMPUTER SCIENCE ORIENTATION | |
| ENGR&104 | INTRODUCTION TO DESIGN | |
| ENGR 107 | INTRO TO AEROSPACE ENGINEERING | |
| ENGR 109 | INTRODUCTION TO ENGINEERING | |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | |
| ENGR 115 | GEOMETRIC DIMENSIONING AND TOLERANCING | |
| ENGR 120 | INTRO TO ELECTRICAL/COMPUTER SCI & ENGINEERI | |

| | |
|---------------------|-------------------------------------|
| ENGR 121 | FIELD SURVEY I |
| ENGR 140 | BASIC AUTOCAD |
| ENGR 150 | BASIC SOLIDWORKS |
| ENGR 199 | COOPERATIVE WORK EXPERIENCE |
| ENGR&204 | ELECTRICAL CIRCUITS |
| ENGR 208 | FUNDAMENTALS OF FLIGHT |
| ENGR&214 | STATICS |
| ENGR&215 | DYNAMICS |
| ENGR 221 | MATERIALS SCIENCE |
| ENGR&224 | THERMODYNAMICS |
| ENGR&225 | MECHANICS OF MATERIALS |
| ENGR 239 | MANUFACTURING PROCESSES |
| ENGR 250 | DIGITAL LOGIC DESIGN |
| ENGR 252 | ELECTRICAL CIRCUITS AND SIGNALS |
| ENGR 253 | SIGNALS AND SYSTEMS |
| ENGR 270 | DIGITAL SYSTEMS AND MICROPROCESSORS |
| ENGR 280 | SELECTED TOPICS |
| ENGR 290 | SPECIAL PROJECTS |
| ENGL&235 | TECHNICAL WRITING |
| MATH 215 | LINEAR ALGEBRA |
| Total Credits/Units | |
| 90 | |

- 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.

¹ 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (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)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.

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) (p. 84)

Environmental Science (AST1)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---|------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 326) | | 3 |
| Subtotal | | 3 |
| <i>Humanities & Social Sciences</i> | | |
| ENVS 231 | ENVIRONMENTAL POLITICS | 5 |
| or POLS 231 | ENVIRONMENTAL POLITICS | |

| | |
|--|----|
| Humanities List A (p. 326) | 5 |
| Humanities or Social Sciences (p. 327) | 5 |
| Subtotal | 15 |

Pre-Major Program Requirements

| | | |
|----------|----------------------------------|---|
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | 5 |
| BIOL&222 | MAJORS CELL/MOLECULAR | 5 |
| BIOL&223 | MAJORS ORGANISMAL PHYS | 5 |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&142 | GENERAL CHEMISTRY II | 4 |
| CHEM&143 | GENERAL CHEMISTRY III | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | 1 |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | 2 |

Program Requirements

| | | |
|--------------------------------|---|---|
| MATH&146 | INTRODUCTION TO STATISTICS | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| ENVS&101 | INTRODUCTION TO ENVIRONMENTAL SCIENCE | 5 |
| ENVS 221 | ENVIRONMENTAL SCIENCE: PROBLEM SOLVING | 5 |
| Select one from the following: | | 5 |
| GEOL 102 | INTRO TO GEOL II: EARTH'S SURFACE PROCESSES | |
| PHYS&241 & PHYS&231 | ENGINEERING PHYSICS I and ENGINEERING PHYSICS LAB I | |

Total Credits/Units 89

| Code | Title | Credits/ Units |
|------|-------|-------------------|
|------|-------|-------------------|

Suggested Electives

| | | |
|--------------------------------|---|---|
| Select one from the following: | | 5 |
| GEOL&101 | INTRO PHYSICAL GEOLOGY | |
| PHYS&242 & PHYS&232 | ENGINEERING PHYSICS II and ENGINEERING PHYSICS LAB II | |
| PHYS&243 & PHYS&233 | ENGINEERING PHYSICS III and ENGINEERING PHYSICS LAB III | 5 |
| SURV 125 | INTRODUCTION TO GIS | 3 |

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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.

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) (p. 86)

Geology (AST1)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---|-----------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Select one from the following: | | 3 |
| HPE 258 | FITNESS-WELLNESS | |
| HLTH Health Course (two credits/units) and PE Activity Course (one credit/unit) | | |
| Subtotal | | 3 |
| <i>Humanities & Social Sciences</i> | | |
| CMST&220 | PUBLIC SPEAKING | 5 |

| | | |
|---|---|-----|
| Select 10 credits/units from the following: | 10 | |
| Humanities Course Options (p. 326) | | |
| Social Sciences Course Options (p. 327) | | |
| Subtotal | 15 | |
| Chemistry Sequence | | |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&142 | GENERAL CHEMISTRY II | 4 |
| CHEM&143 | GENERAL CHEMISTRY III | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | 1 |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | 2 |
| Additional Science Sequence Requirements | | |
| PHYS&241 | ENGINEERING PHYSICS I | 5 |
| & PHYS&231 | and ENGINEERING PHYSICS LAB I | |
| PHYS&242 | ENGINEERING PHYSICS II | 5 |
| & PHYS&232 | and ENGINEERING PHYSICS LAB II | |
| PHYS&243 | ENGINEERING PHYSICS III | 5 |
| & PHYS&233 | and ENGINEERING PHYSICS LAB III | |
| Pre-Major Program Requirements | | |
| GEOL&101 | INTRO PHYSICAL GEOLOGY | 5 |
| GEOL 102 | INTRO TO GEOL II: EARTH'S SURFACE PROCESSES | 5 |
| GEOL 218 | FIELD STUDIES IN GEOLOGY | 1-6 |
| MATH&153 | CALCULUS III | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| Total Credits/Units | | 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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

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 096 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 Concentration

To earn the Honors Academic Concentration, 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 Concentration (AC) (p. 87)

Honors Concentration (AC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

To earn the Transfer AA Honors Academic Concentration, 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.

| Code | Title | Credits/ Units |
|---------------------------------|---------------------------------------|-------------------|
| Certificate Requirements | | |
| Honors-designated courses | | 20 |
| HONS 290 | SPECIAL PROJECTS: HONORS ¹ | 1-6 |
| Total Credits/Units | | 23 |

¹ Students must complete at least three credits/units.

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 knowledge and skills from multiple academic disciplines to produce original academic or artistic works.

HUMAN SERVICES

Clark College is proposing a Bachelors of Applied Sciences degree in Human Services to serve the needs of the community and Clark College students by keeping current with emerging trends in mental health and addictions treatment. This BASHS degree will operate in tandem with the Addiction Counseling Education Department, which will function as the primary foundational Associates degree for the BAS.

All prospective students who meet the minimum requirements, and would like to apply for admission to the BAS in Human Services program, must have the following prior to admission:

- An associate degree or higher, or within 15 credits of graduating with an associate degree, from a regionally accredited institution;
- Cumulative 2.5 GPA in degree program coursework;
- Submission of official college transcripts from previous colleges attended;
- Completed Baccalaureate of Applied Science in Human Services Statement of Intent submitted in-person, by mail, or email to the Enrollment Services Office:

Enrollment Services Office
Gaiser Hall, Room 128
360-992-2107
admissions@clark.edu

Clark College
Enrollment Services Office, GH 128
1933 Fort Vancouver Way
Vancouver, WA 98663-3598

- Bachelor of Applied Science in Human Services (BAS) (p. 88)

Bachelor of Applied Science in Human Services (BAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&146 | INTRODUCTION TO STATISTICS | 5 |
| <i>Humanities</i> | | |
| WS 101 | INTRODUCTION TO WOMEN'S STUDIES | 5 |
| <i>Social Sciences</i> | | |
| PSYC&100 | GENERAL PSYCHOLOGY | 5 |
| PSYC&200 | LIFESPAN PSYCHOLOGY | 5 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 327) | | 5 |

| | | |
|----------|---|---|
| GEOL 102 | INTRO TO GEOL II: EARTH'S SURFACE PROCESSES (recommended) | 5 |
|----------|---|---|

Additional General Education Courses

| | | |
|--|---|----|
| SOC 230 | DOMESTIC VIOLENCE | 5 |
| ANTH&206 | INTRODUCTION TO CULTURAL ANTHROPOLOGY (recommended) | 5 |
| SOC& 101 | INTRO TO SOCIOLOGY (recommended) | 5 |
| ACED courses and/or General Education Courses ¹ | | 42 |

| Code | Title | Credits/ Units |
|------|-------|-------------------|
|------|-------|-------------------|

Major Area Requirements

| | | |
|---|--|------------|
| BASHS301 | INTRODUCTION TO HUMAN SERVICES | 5 |
| BASHS302 | SYSTEMS AND SOCIAL JUSTICE | 5 |
| BASHS303 | ETHICS IN HUMAN SERVICES | 5 |
| BASHS304 | PRACTICAL FAMILY THERAPY | 5 |
| BASHS305 | ADVANCED CO-OCCURRING DISORDERS TREATMENT | 5 |
| BASHS306 | TRAUMA, GRIEF & LOSS | 5 |
| BASHS401 | MULTICULTURAL COUNSELING IN HS | 5 |
| BASHS402 | HUMAN SERVICES INTERVENTION & ADVOCACY | 5 |
| BASHS403 | RESEARCH & EVALUATION METHODOLOGIES IN HS | 5 |
| BASHS404 | ADVANCED CASE MANAGEMENT IN HS | 5 |
| BASHS410 | HUMAN SERVICES FIELD PLACEMENT I | 5 |
| BASHS411 | HUMAN SERVICES FIELD PLACEMENT II | 5 |
| ACED 101 | SURVEY OF ADDICTIONOLOGY | 3 |
| ACED 122 | INTRODUCTION TO ADDICTIONS COUNSELING SKILLS | 3 |
| ACED 125 | GROUP COUNSELING IN ADDICTIONS | 3 |
| ACED 136 | LAW AND ETHICS IN ADDICTIONS COUNSELING | 3 |
| ACED 160 | PHARMACOLOGY OF DRUGS OF ABUSE | 3 |
| ACED 201 | THEORIES OF COUNSELING | 3 |
| Total Credits including those earned from AA/AAS/AAT | | 180 |

¹ Please note that for all BAS degrees the following General Education credits must be earned:

- Communications - 10 credits
- Quantitative/Symbolic Reasoning Skills - 5 credits
- Humanities - 10 credits
- Social Science - 10 credits
- Natural Science - 10 credits
- Additional general education courses – 15 credits

Please work with advisor to identify any outstanding needs based on associate degree credits already earned.

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 statistics 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) (p. 89)
- Industrial Maintenance Technologies (AAT) (p. 89)

Industrial Maintenance Technician (CA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/Units |
|--------------------------------|---|---------------|
| Major Area Requirements | | |
| BTEC 150 | COMPUTER BUSINESS APPLICATIONS | 5 |
| HLTH 120 | ADULT CPR AND FIRST AID | 1 |
| MACH 111 | BASIC GENERAL MACHINING PROCESSES | 5 |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 123 or MTX 125 | PICK AND PLACE ROBOT SERVO ROBOT | 3 |
| WELD 102 | INTRODUCTION TO WELDING | 6 |
| WELD 140 or WELD 144 | GAS METAL ARC WELDING SHIELDED METAL ARC WELDING | 6 |
| MACH 235 | ELEMENTARY METALLURGY | 2 |
| MACH 236 | ELEMENTARY METALLURGY LAB | 2 |
| Total Credits/Units | | 43 |

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

Information page (<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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/Units |
|---------------------------------------|---|---------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&230 | SMALL GROUP COMMUNICATION (recommended) | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| BTEC 150 | COMPUTER BUSINESS APPLICATIONS | 5 |
| HLTH 120 | ADULT CPR AND FIRST AID | 1 |
| MACH 111 | BASIC GENERAL MACHINING PROCESSES | 5 |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 123 | PICK AND PLACE ROBOT | 3 |

| | | |
|--|---|----|
| or MTX 125 | SERVO ROBOT | |
| MTX 285 | PROJECT MANAGEMENT AND LEAN MANUFACTURING | 2 |
| WELD 102 | INTRODUCTION TO WELDING | 6 |
| Select one from the following: | | 12 |
| WELD 140 & WELD 141 | GAS METAL ARC WELDING and GAS METAL ARC FABRICATION | |
| WELD 144 & WELD 145 | SHIELDED METAL ARC WELDING and SHIELDED METAL ARC FABRICATION | |
| MACH 235 | ELEMENTARY METALLURGY | 2 |
| MACH 236 | ELEMENTARY METALLURGY LAB | 2 |
| Program Specialty Area Requirements | | |
| Select a minimum of 26 credits/units in specialty areas from the following list: | | 26 |
| MACH 112 | BASIC ENGINE LATHE PROCESSES I | |
| MACH 113 | BASIC VERTICAL MILLING PROCESSES I | |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | |
| MTX 130 | PROGRAMMABLE LOGIC CONTROLLERS 1 | |
| MTX 165 | ELECTRIC MOTOR CONTROL 2 | |
| MTX 207 | THERMAL PROCESS CONTROL | |
| MTX 225 | SPEED CONTROL SYSTEMS | |
| MTX 230 | LASER ALIGNMENT | |
| MTX 250 | ADVANCED PROGRAMMABLE LOGIC CONTROLLERS | |
| WELD 110 | WELDING BLUEPRINT READING | |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- 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.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and 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. Describe OFC and PAC principles of operation.

- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, CAC-A and SMAW welding and cutting processes. Understand and 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. Describe OFC and CAC-A principles of operation.
- Demonstrate the ability to safely use all metal working shop equipment and perform safety inspections of said equipment.

INTERNATIONAL STUDIES

The International Studies concentration option 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 Academic Concentration

For students in World Languages (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 Academic Concentration (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) (p. 91)

International Studies (AC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The International Studies Academic Concentration allows students to earn two years of foreign language credit while meeting the distribution requirements for the Associate in Arts degree.

| Code | Title | Credits/ Units |
|------------------------------|---|-------------------|
| Required Core Courses | | |
| <i>World Language</i> | | |
| | Select five credits/units from &200-level courses in one language (Japanese or Spanish) | 5 |
| | Subtotal | 5 |
| <i>Electives</i> | | |
| | Select 20 credits/units from the Approved International Electives | 20 |
| | Subtotal | 20 |
| | Total Credits/Units | 25 |

The International Studies Academic Concentration 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 Academic Concentration 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:

| Code | Title | Credits/ Units |
|---|---------------------------------------|-------------------|
| Approved International Electives | | |
| ANTH&206 | INTRODUCTION TO CULTURAL ANTHROPOLOGY | 5 |
| | Select one from the following: | 5 |

| | | |
|-------------|---------------------------------------|---|
| ART 220 | ART HISTORY: ANCIENT TO LATE ANTIQUE | |
| ART 221 | ART HISTORY: MEDIEVAL-RENAISSANCE | |
| ART 222 | ART HISTORY: BAROQUE-MODERN | |
| BIOL 101 | ENVIRONMENTAL BIOLOGY | 5 |
| CMST 216 | INTERCULTURAL COMMUNICATION | 5 |
| ECON 110 | INTRODUCTION TO THE GLOBAL ECONOMY | 5 |
| ECON 120 | INTERNATIONAL ECONOMICS | 3 |
| ENGL 261 | WORLD LITERATURE | 3 |
| or ENGL 262 | WORLD LITERATURE | |
| | Select one from the following: | 3 |
| ENGL 264 | BRITISH LITERATURE | |
| ENGL 265 | BRITISH LITERATURE | |
| ENGL 266 | BRITISH LITERATURE | |
| ENGL 150 | INTRODUCTION TO MYTHOLOGY | 3 |
| GEOG&102 | WORLD REGIONAL GEOGRAPHY | 5 |
| GEOG&207 | ECONOMIC GEOGRAPHY | 5 |
| HIST 231 | HISTORY OF GENOCIDE | 3 |
| HIST 260 | AFRICAN HISTORY | 5 |
| HIST 285 | HISTORY OF LATIN AMERICA | 5 |
| | Select one from the following: | 5 |
| HIST&126 | WORLD CIVILIZATIONS I | |
| HIST&127 | WORLD CIVILIZATIONS II | |
| HIST&128 | WORLD CIVILIZATIONS III | |
| HIST 251 | WOMEN IN WORLD HISTORY I | 5 |
| or HIST 252 | WOMEN IN WORLD HISTORY II | |
| JAPN 171 | JAPANESE SOCIETY | 3 |
| | Select one from the following: | 5 |
| MUSC 116 | MUSIC HISTORY: MIDDLE AGES TO BAROQUE | |
| MUSC 117 | MUSIC HISTORY: CLASSICAL/ROMANTIC | |
| MUSC 118 | MUSIC HISTORY: TWENTIETH CENTURY | |
| PHIL&101 | INTRODUCTION TO PHILOSOPHY | 5 |
| POLS&203 | INTERNATIONAL RELATIONS | 5 |
| POLS 220 | THE GEOPOLITICS OF THE MIDDLE EAST | 5 |
| WS 201 | WOMEN AROUND THE WORLD | 3 |

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 Awareness of other cultures.
- Demonstrate world language skills
- Describe the field of international studies.

JOURNALISM

Clark College's Journalism program prepares students who plan to transfer to a four-year institution as well as those seeking success in a workplace that requires clear writing and thoughtful inquiry. Our coursework also helps all students become more responsible consumers of news and information.

We offer a News Media Studies certificate designed to provide students with a clear pathway to greater success and preparation for transfer. Details about the 24- to 25- credit course of study appear below.

The core course is JOUR 101, Introduction to Journalism, a five-credit writing-intensive class that includes a study of the changing news media landscape as well as instruction in the basics of news reporting and writing.

Students looking at careers or further study in journalism, public relations, public affairs, politics, law, and communications should consider taking JOUR 111, which is our Digital News course, and JOUR 110, College News Production. College News Production provides students an opportunity to further develop meaningful hands-on skills by working on the print and online editions of the award-winning student news product, the Independent.

Several paid positions on the Independent are available each quarter for students, ranging from copy and section editors, designers, photography editors, and multimedia editors.

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 provides a foundation for understanding how the media function in our society and is highly recommended. ENGL&101, ENGL&102, and ENGL 103 are designed to improve a student's ability to write and do documented research accurately. Courses in the social sciences (particularly political science), history, literature, and science 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, graphic design, and multimedia production, including photography and video production.

Because course requirements vary at each institution, a student interested in a four-year degree in Journalism should work with advisers at Clark and the transfer institution. Journalism courses typically transfer to four-year institutions. However, a student should contact the transfer institution to clarify each course's transferability.

- News Media Studies (AC) (p. 92)

News Media Studies (AC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

For students who want expertise in journalism and news media, this concentration may be earned along with a regular AA degree, and will be awarded upon graduation.

| Code | Title | Credits/ Units |
|--|-----------------------------|-------------------|
| Core Courses | | |
| JOUR 101 | INTRODUCTION TO JOURNALISM | 5 |
| JOUR 111 | DIGITAL NEWS | 5 |
| Select three credits/units from the following: | | 3 |
| JOUR 110 | COLLEGE NEWS PRODUCTION | |
| JOUR 120 | COLLEGE NEWS PRODUCTION | |
| JOUR 130 | COLLEGE NEWS PRODUCTION | |
| ENGL 127 | CREATIVE NONFICTION WRITING | 3 |
| CMST&102 | INTRO TO MASS MEDIA | 5 |
| Subtotal | | 21 |
| Additional Coursework | | |
| Select one from the following: | | 3-4 |
| CGT 103 | INDESIGN PAGE LAYOUT | |
| CGT 201 | WEB VIDEO PRODUCTION | |
| CGT 106 | SOCIAL MEDIA EXPLORATION | |
| ART 131 | PHOTOGRAPHIC STORYTELLING | |
| Subtotal | | 3-4 |
| Total Credits/Units | | 24-25 |

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:

- Students who complete the News Media Studies Certificate will be able to explain current news media principles and practices and appropriately apply fundamental news production skills.

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, CNC milling machines, and 4 & 5 axis mill attachment.

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 CNC lathe, CNC mills, 4 & 5 axis mill attachment etc. The basic CNC class involves writing programs and learning to safely operate the HAAS CNC mills and lathes..

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 (CA) (p. 93)
- Machining Technician (CP) (p. 93)
- Machining Technologies (AAS) (p. 94)
- Machining Technologies (AAT) (p. 94)

Manual Machining (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|--------------------------------------|-------------------|
| Major Area Requirements | | |
| MACH 111 | BASIC GENERAL MACHINING PROCESSES | 5 |
| MACH 112 | BASIC ENGINE LATHE PROCESSES I | 5 |
| MACH 113 | BASIC VERTICAL MILLING PROCESSES I | 5 |
| MACH 122 | BASIC ENGINE LATHE PROCESSES II | 5 |
| MACH 123 | BASIC VERTICAL MILLING PROCESSES II | 5 |
| MACH 131 | BASIC SURFACE GRINDER PROCESSES II | 5 |
| MACH 132 | BASIC ENGINE LATHE PROCESSES III | 5 |
| MACH 133 | BASIC VERTICAL MILLING PROCESSES III | 5 |
| Total | | 40 |

Machining Technician (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills (3 credits required)</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| <i>Computational Skills (3 credits required)</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended) | 5 |
| Subtotal | | 6-10 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| MACH 111 | BASIC GENERAL MACHINING PROCESSES | 5 |
| MACH 112 | BASIC ENGINE LATHE PROCESSES I | 5 |
| MACH 113 | BASIC VERTICAL MILLING PROCESSES I | 5 |
| MACH 122 | BASIC ENGINE LATHE PROCESSES II | 5 |
| MACH 123 | BASIC VERTICAL MILLING PROCESSES II | 5 |
| MACH 131 | BASIC SURFACE GRINDER PROCESSES II | 5 |
| MACH 132 | BASIC ENGINE LATHE PROCESSES III | 5 |
| MACH 133 | BASIC VERTICAL MILLING PROCESSES III | 5 |
| MACH 241 | ADVANCED PRECISION MEASUREMENT | 5 |
| MACH 242 | INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING | 5 |
| MACH 243 | INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING | 5 |
| MACH 251 | TOOLING CONCEPTS | 5 |
| MACH 252 | CNC LATHE SETUP AND OPERATION | 5 |
| MACH 253 | CNC MILLING SETUP AND OPERATION | 5 |
| MACH 262 | ADVANCED CNC LATHE PROGRAMMING | 5 |
| MACH 263 | ADVANCED MILLING 3D PROGRAMMING AND MACHINING | 5 |
| Related Required Classes | | |
| MACH 235 | ELEMENTARY METALLURGY | 2 |
| MACH 236 | ELEMENTARY METALLURGY LAB | 2 |
| Total Credits/Units | | 93-97 |

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<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.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate compliance of all machine shop safety regulations.
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Interpret blueprints and perform inspection of machined parts.

Machining Technologies (AAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills (6 credits required)</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| Course Options (p. 336) | | 1 |
| Subtotal | | 6 |
| <i>Health & Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills (3 credits required)</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended) | 5 |
| Subtotal | | 3 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| MACH 111 | BASIC GENERAL MACHINING PROCESSES | 5 |
| MACH 112 | BASIC ENGINE LATHE PROCESSES I | 5 |
| MACH 113 | BASIC VERTICAL MILLING PROCESSES I | 5 |

| | | |
|----------|---|---|
| MACH 122 | BASIC ENGINE LATHE PROCESSES II | 5 |
| MACH 123 | BASIC VERTICAL MILLING PROCESSES II | 5 |
| MACH 131 | BASIC SURFACE GRINDER PROCESSES II | 5 |
| MACH 132 | BASIC ENGINE LATHE PROCESSES III | 5 |
| MACH 133 | BASIC VERTICAL MILLING PROCESSES III | 5 |
| MACH 241 | ADVANCED PRECISION MEASUREMENT | 5 |
| MACH 242 | INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING | 5 |
| MACH 243 | INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING | 5 |
| MACH 251 | TOOLING CONCEPTS | 5 |
| MACH 252 | CNC LATHE SETUP AND OPERATION | 5 |
| MACH 253 | CNC MILLING SETUP AND OPERATION | 5 |
| MACH 262 | ADVANCED CNC LATHE PROGRAMMING | 5 |
| MACH 263 | ADVANCED MILLING 3D PROGRAMMING AND MACHINING | 5 |

Related Required Classes

| | | |
|----------|---------------------------|---|
| MACH 235 | ELEMENTARY METALLURGY | 2 |
| MACH 236 | ELEMENTARY METALLURGY LAB | 2 |

Total Credits/Units 108

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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog

via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (recommended) | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| MACH 111 | BASIC GENERAL MACHINING PROCESSES | 5 |
| MACH 112 | BASIC ENGINE LATHE PROCESSES I | 5 |
| MACH 113 | BASIC VERTICAL MILLING PROCESSES I | 5 |
| MACH 122 | BASIC ENGINE LATHE PROCESSES II | 5 |
| MACH 123 | BASIC VERTICAL MILLING PROCESSES II | 5 |
| MACH 131 | BASIC SURFACE GRINDER PROCESSES II | 5 |
| MACH 132 | BASIC ENGINE LATHE PROCESSES III | 5 |
| MACH 133 | BASIC VERTICAL MILLING PROCESSES III | 5 |
| MACH 241 | ADVANCED PRECISION MEASUREMENT | 5 |
| MACH 242 | INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING | 5 |
| MACH 243 | INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING | 5 |
| MACH 251 | TOOLING CONCEPTS | 5 |
| MACH 252 | CNC LATHE SETUP AND OPERATION | 5 |
| MACH 253 | CNC MILLING SETUP AND OPERATION | 5 |
| MACH 262 | ADVANCED CNC LATHE PROGRAMMING | 5 |
| MACH 263 | ADVANCED MILLING 3D PROGRAMMING AND MACHINING | 5 |
| Related Required Classes | | |
| MACH 235 | ELEMENTARY METALLURGY | 2 |
| MACH 236 | ELEMENTARY METALLURGY LAB | 2 |
| Total Credits/Units | | 99 |

- 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 and clearly explain an effective strategy to solve a quantitative problem. (GE)

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate compliance of all machine shop safety regulations.
- Interpret blueprints and perform inspection of machined parts.

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) (p. 96)
- Marketing (AAS) (p. 96)

Marketing (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| BTEC 106 | APPLIED OFFICE ENGLISH | 3-5 |
| or ENGL&101 | ENGLISH COMPOSITION I | |
| Subtotal | | 3-5 |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| Subtotal | | 3 |
| Business Core Courses | | |
| BUS 028 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS& 101 | INTRODUCTION TO BUSINESS | 5 |
| BTEC 100 | KEYBOARDING | 1-3 |
| BTEC 150 | COMPUTER BUSINESS APPLICATIONS | 5 |
| ECON 101 | INTRODUCTION TO ECONOMICS | 3 |

| | | |
|--------------------------------|--|-------|
| MGMT 101 | PRINCIPLES OF MANAGEMENT | 3 |
| Major Area Requirements | | |
| BUS 117 | ADVERTISING | 3 |
| BUS 199 | COOPERATIVE WORK EXPERIENCE ¹ | 1-5 |
| BUS 251 | PROFESSIONAL SELLING | 3 |
| BUS 260 | PRINCIPLES OF MARKETING | 5 |
| CMST&230 | SMALL GROUP COMMUNICATION | 5 |
| Total Credits/Units | | 54-56 |

¹ Minimum of five credits/units must be earned in Cooperative Work Experience.

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (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.
- Create an effective business advertisement to meet the needs of specific target market(s).

Marketing (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| CMST&220 | PUBLIC SPEAKING | 5 |
| | or CMST&230 SMALL GROUP COMMUNICATION | |
| Subtotal | | 5 |
| <i>Health and Physical Education</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| Subtotal | | 3 |
| <i>Natural Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Human Relations</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| <i>Social Sciences</i> | | |
| Satisfied in the CPs | | |
| Subtotal | | 0 |
| Major Area Requirements | | |
| BUS 029 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS 105 | INTRODUCTION TO INTERNATIONAL BUSINESS | 3 |
| BUS 117 | ADVERTISING | 3 |
| BUS& 201 | BUSINESS LAW | 5 |
| BUS 251 | PROFESSIONAL SELLING | 3 |
| BUS 260 | PRINCIPLES OF MARKETING | 5 |
| Select a minimum of 3-14 additional credits/units from the following 3-14 areas: | | |
| Accounting (ACCT) (p. 143) | | |
| Business Administration (BUS) (p. 163) | | |
| Economics (ECON) (p. 201) | | |
| Supervisory Management (MGMT) (p. 234) | | |
| Computer Applications (BTEC) (p. 165) ¹ | | |
| General Electives | | |
| Complete as many General Elective (GE) courses as needed to reach the total of 90 credits/units required by the degree | | |
| Total Credits/Units | | 90-93 |

¹ Six credit/unit maximum.

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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Establish market strategies on the international level.
- Use micro- and macroeconomic concepts to analyze domestic and global business situations.
- Accurately maintain payroll register as required under federal and state laws.
- Create an effective business advertisement to meet the needs of specific target market(s).

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) (p. 98)

Math Education - DTA/MRP (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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:

1. Clark requires 3 credits of Health-Physical Education coursework, and
2. As of Fall 2011, Clark requires a course in Oral Communication, and
3. 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.

Clark College Equivalents

| Code | Title | Credits/ Units |
|--|-------------------------------|-------------------|
| Basic Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative/Symbolic Reasoning Requirements</i> ¹ | | |
| MATH&151 | CALCULUS I | 5 |
| Distribution Requirements | | |
| <i>Humanities</i> | | 15 |
| CMST&220 | PUBLIC SPEAKING ² | |
| Course Options (p. 326) | | |
| <i>Social Sciences</i> | | 15 |
| PSYC&100 | GENERAL PSYCHOLOGY | |
| Course Options (p. 327) | | |
| <i>Natural Sciences</i> | | |
| MATH&152 | CALCULUS II | 5 |
| Course Options (p. 327) ³ | | |
| Major Requirements | | |
| <i>Math Courses</i> | | |
| MATH&153 | CALCULUS III | 5 |
| MATH 215 | LINEAR ALGEBRA | 5 |
| MATH&254 | CALCULUS IV | 5 |
| <i>Education Courses</i> | | |
| EDUC&201 | INTRODUCTION TO EDUCATION | 3 |
| EDUC 210 | INTRODUCTORY FIELD EXPERIENCE | 3 |
| Electives | | |
| <i>Elective Courses</i> | | |
| Course Options (p. 328) ⁴ | | |
| Total Credits/Units | | 90 |

¹ Intermediate algebra proficiency is required.

² Fulfills oral communication requirement

³ Natural science course work, including one lab, as defined by Clark College

⁴ As defined under MRP Requirements/ C. Major Requirements /3. Elective Courses

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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 and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (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) (p. 100)

General - Mathematics (Suggested) (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--|--------------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| <i>Health & Physical Education</i> | | |
| HPE 258 or HPE 266 | FITNESS-WELLNESS MIND BODY HEALTH | 3 |
| <i>Humanities</i> | | |
| CMST&230 | SMALL GROUP COMMUNICATION | 5 |

| | | |
|--|---|----|
| Additional Humanities Course(s) | | 10 |
| <i>Social Sciences</i> | | |
| ECON&201 or ECON&202 | MICRO ECONOMICS MACRO ECONOMICS | 5 |
| Course Options (p. 327) | | 10 |
| <i>Additional Requirements</i> | | |
| <i>Natural Science</i> | | |
| PHYS&241 & PHYS&231 & PHYS 094 | ENGINEERING PHYSICS I and ENGINEERING PHYSICS LAB I and PHYSICS CALCULATIONS ¹ | 6 |
| PHYS&242 & PHYS&232 & PHYS 095 | ENGINEERING PHYSICS II and ENGINEERING PHYSICS LAB II and PHYSICS CALCULATIONS ¹ | 6 |
| Additional course in Natural Science outside of PHYS | | 5 |
| COLL 101 | COLLEGE ESSENTIALS: INTRODUCTION TO CLARK | 2 |
| Elective Requirements | | |
| MATH&152 | CALCULUS II | 5 |
| MATH&153 | CALCULUS III | 5 |
| MATH 215 | LINEAR ALGEBRA | 5 |
| MATH 221 | DIFFERENTIAL EQUATIONS | 5 |
| MATH&254 | CALCULUS IV | 5 |
| PHYS&243 & PHYS&233 & PHYS 096 | ENGINEERING PHYSICS III and ENGINEERING PHYSICS LAB III and PHYSICS CALCULATIONS ¹ | 6 |
| Total Credits/Units | | 95 |

¹ PHYS 094, PHYS 095, and PHYS 096 do not count toward the credit total of a transfer degree.

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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)

- Apply communication theory to demonstrate effective oral communication skills. (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) (p. 102)

Mechanical, Civil & Aeronautical Engineering (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

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. Additional courses may be needed to satisfy graduation requirements for the Associate in Science degree (<https://catalog.clark.edu/academic-plans/track-2-ast2/general>).

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.

Clark College Equivalents

| Code | Title | Credits/ Units |
|--|---|-------------------|
| Communication Skills | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Humanities/Fine Arts/English & Social Science | | |
| Minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science | | 15 |
| Mathematics | | |
| MATH&151 | CALCULUS I ¹ | 5 |
| MATH&152 | CALCULUS II | 5 |
| MATH&153 | CALCULUS III | 5 |
| MATH 215 | LINEAR ALGEBRA | 5 |
| MATH 221 | DIFFERENTIAL EQUATIONS ² | 5 |
| Physics | | |
| Complete the following with the required concurrent enrollment: ³ | | 15 |
| <i>Sequence One</i> | | |
| PHYS&241 & PHYS 094 | ENGINEERING PHYSICS I and PHYSICS CALCULATIONS (concurrent enrollment required) | 5 |
| PHYS&231 | ENGINEERING PHYSICS LAB I | 1 |
| <i>Sequence Two</i> | | |
| PHYS&242 & PHYS 095 | ENGINEERING PHYSICS II and PHYSICS CALCULATIONS (concurrent enrollment required) | 5 |
| PHYS&232 | ENGINEERING PHYSICS LAB II | 1 |
| <i>Sequence Three</i> | | |
| PHYS&243 & PHYS 096 | ENGINEERING PHYSICS III and PHYSICS CALCULATIONS (concurrent enrollment required) | 5 |
| PHYS&233 | ENGINEERING PHYSICS LAB III | 1 |
| Chemistry with Laboratory | | |
| CHEM&141 & CHEM&151 | GENERAL CHEMISTRY I and GENERAL CHEMISTRY LABORATORY I | 5 |
| CHEM&142 & CHEM&152 | GENERAL CHEMISTRY II and GENERAL CHEMISTRY LABORATORY II | 5 |
| Electives | | |
| <i>Electives as appropriate for intended major and intended baccalaureate 15-20 institution. Requirements vary by school and program. See an Engineering faculty advisor for proper selection.</i> | | |
| Computer Programming | | |
| 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 Credits/Units | 102 |
|----------------------------|------------|

- ¹ MATH 103/MATH 102 and MATH 111/MATH 110 are required prerequisites for MATH&151 that may be needed if calculus placement is not met via COMPASS.
- ² Clark requires concurrent enrollment of completion in MATH&254 when taking MATH 221.
- ³ Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

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)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (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.
- 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.

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.

- Mechatronics Fundamentals (CC) (p. 104)
- Instrumentation/Control Automation (CA) (p. 104)
- Mechanical Automation (CA) (p. 104)
- Instrumentation/Control Automation (CP) (p. 105)
- Mechanical Automation (CP) (p. 106)
- Instrumentation/Control Automation (AAT) (p. 106)
- Mechanical Automation (AAT) (p. 107)

Mechatronics Fundamentals (CC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|--------------------------|-------------------|
| Major Area Requirements | | |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 103 | BASIC MEASUREMENT TOOLS | 2 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | 4 |
| Total Credits/Units | | 19 |

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 DC and AC circuits for malfunctions.
- Design fluid power systems and identify common components.

- Correctly connect, operate and troubleshoot an AC motor control circuit.
- Demonstrate proper tool identification and usage techniques.

Instrumentation/Control Automation (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|----------------------------------|-------------------|
| Major Area Requirements | | |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 103 | BASIC MEASUREMENT TOOLS | 2 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | 4 |
| MTX 113 | ELECTRICAL POWER DISTRIBUTION | 2 |
| MTX 117 | MECHATRONICS 1 | 2 |
| MTX 121 | SEMICONDUCTORS I | 3 |
| MTX 123 | PICK AND PLACE ROBOT | 3 |
| MTX 130 | PROGRAMMABLE LOGIC CONTROLLERS 1 | 4 |
| MTX 135 | INDUSTRIAL ELECTRICAL WIRING | 3 |
| MTX 165 | ELECTRIC MOTOR CONTROL 2 | 4 |
| Total Credits/Units | | 40 |

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

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|----------------------------------|-------------------|
| Major Area Requirements | | |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 103 | BASIC MEASUREMENT TOOLS | 2 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | 4 |
| MTX 113 | ELECTRICAL POWER DISTRIBUTION | 2 |
| MTX 117 | MECHATRONICS 1 | 2 |
| MTX 120 | MECHANICAL DRIVES 1 | 3 |
| MTX 121 | SEMICONDUCTORS I | 3 |
| MTX 123 | PICK AND PLACE ROBOT | 3 |
| MTX 127 | PIPING | 2 |
| MTX 130 | PROGRAMMABLE LOGIC CONTROLLERS 1 | 4 |
| MTX 150 | MECHANICAL DRIVES 2 | 2 |
| MTX 153 | DC DRIVES | 4 |
| Total Credits/Units | | 44 |

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

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|-------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| | Course Options (p. 336) | 3 |
| | Subtotal | 3 |
| <i>Computational Skills</i> | | |
| | Course Options (p. 337) | 3 |

| | | |
|--------------------------------|---|----|
| Subtotal | | 3 |
| <i>Human Relations</i> | | |
| | Course Options (p. 337) | 3 |
| | Subtotal | 3 |
| Major Area Requirements | | |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 103 | BASIC MEASUREMENT TOOLS | 2 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | 4 |
| MTX 113 | ELECTRICAL POWER DISTRIBUTION | 2 |
| MTX 117 | MECHATRONICS 1 | 2 |
| MTX 121 | SEMICONDUCTORS I | 3 |
| MTX 123 | PICK AND PLACE ROBOT | 3 |
| MTX 125 | SERVO ROBOT | 3 |
| MTX 130 | PROGRAMMABLE LOGIC CONTROLLERS 1 | 4 |
| MTX 135 | INDUSTRIAL ELECTRICAL WIRING | 3 |
| MTX 165 | ELECTRIC MOTOR CONTROL 2 | 4 |
| MTX 205 | FLOW PROCESS CONTROL | 5 |
| MTX 207 | THERMAL PROCESS CONTROL | 5 |
| MTX 210 | ELECTRO-FLUID POWER | 4 |
| MTX 216 | MECHATRONICS 2 | 5 |
| MTX 220 | WORKPLACE ORGANIZATION AND PRACTICES | 2 |
| MTX 223 | WORK TEAMS AND PRODUCT DESIGN | 3 |
| MTX 225 | SPEED CONTROL SYSTEMS | 2 |
| MTX 250 | ADVANCED PROGRAMMABLE LOGIC CONTROLLERS | 4 |
| MTX 270 | CAPSTONE | 3 |
| MTX 285 | PROJECT MANAGEMENT AND LEAN MANUFACTURING | 2 |
| MTX 295 | ORGANIZATIONAL ENTREPRENEURSHIP | 3 |
| Total Credits/Units | | 90 |

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- Assimilate and interpret technical and nontechnical descriptions to form a solution.
- Design, operate, and troubleshoot automation processes and systems.

Mechanical Automation (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Course Options (p. 336) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 3 |
| Subtotal | | 3 |
| Major Area Requirements | | |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 103 | BASIC MEASUREMENT TOOLS | 2 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | 4 |
| MTX 113 | ELECTRICAL POWER DISTRIBUTION | 2 |
| MTX 117 | MECHATRONICS 1 | 2 |
| MTX 120 | MECHANICAL DRIVES 1 | 3 |
| MTX 121 | SEMICONDUCTORS I | 3 |
| MTX 123 | PICK AND PLACE ROBOT | 3 |
| MTX 127 | PIPING | 2 |
| MTX 130 | PROGRAMMABLE LOGIC CONTROLLERS 1 | 4 |
| MTX 150 | MECHANICAL DRIVES 2 | 2 |
| MTX 153 | DC DRIVES | 4 |
| MTX 216 | MECHATRONICS 2 | 5 |
| MTX 220 | WORKPLACE ORGANIZATION AND PRACTICES | 2 |
| MTX 223 | WORK TEAMS AND PRODUCT DESIGN | 3 |
| MTX 227 | MECHANICAL DRIVES 3 | 4 |
| MTX 230 | LASER ALIGNMENT | 2 |
| MTX 250 | ADVANCED PROGRAMMABLE LOGIC CONTROLLERS | 4 |
| MTX 260 | ADVANCED PNEUMATICS AND VACUUM | 3 |
| MTX 270 | CAPSTONE | 3 |

| | | |
|---------------------|---|----|
| MTX 285 | PROJECT MANAGEMENT AND LEAN MANUFACTURING | 2 |
| MTX 295 | ORGANIZATIONAL ENTREPRENEURSHIP | 3 |
| Total Credits/Units | | 84 |

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<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.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

Instrumentation/Control Automation (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&230 | SMALL GROUP COMMUNICATION (recommended) | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |

| | | |
|---------------------|---|----|
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 103 | BASIC MEASUREMENT TOOLS | 2 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | 4 |
| MTX 113 | ELECTRICAL POWER DISTRIBUTION | 2 |
| MTX 117 | MECHATRONICS 1 | 2 |
| MTX 121 | SEMICONDUCTORS I | 3 |
| MTX 123 | PICK AND PLACE ROBOT | 3 |
| MTX 125 | SERVO ROBOT | 3 |
| MTX 130 | PROGRAMMABLE LOGIC CONTROLLERS 1 | 4 |
| MTX 135 | INDUSTRIAL ELECTRICAL WIRING | 3 |
| MTX 165 | ELECTRIC MOTOR CONTROL 2 | 4 |
| MTX 205 | FLOW PROCESS CONTROL | 5 |
| MTX 207 | THERMAL PROCESS CONTROL | 5 |
| MTX 210 | ELECTRO-FLUID POWER | 4 |
| MTX 216 | MECHATRONICS 2 | 5 |
| MTX 220 | WORKPLACE ORGANIZATION AND PRACTICES | 2 |
| MTX 223 | WORK TEAMS AND PRODUCT DESIGN | 3 |
| MTX 225 | SPEED CONTROL SYSTEMS | 2 |
| MTX 250 | ADVANCED PROGRAMMABLE LOGIC CONTROLLERS | 4 |
| MTX 270 | CAPSTONE | 3 |
| MTX 285 | PROJECT MANAGEMENT AND LEAN MANUFACTURING | 2 |
| MTX 295 | ORGANIZATIONAL ENTREPRENEURSHIP | 3 |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&230 | SMALL GROUP COMMUNICATION (recommended) | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| MTX 100 | INDUSTRIAL SAFETY | 1 |
| MTX 101 | DC FUNDAMENTALS | 3 |
| MTX 102 | AC FUNDAMENTALS | 4 |
| MTX 103 | BASIC MEASUREMENT TOOLS | 2 |
| MTX 105 | BASIC HYDRAULICS | 3 |
| MTX 107 | BASIC PNEUMATICS | 2 |
| MTX 110 | ELECTRIC MOTOR CONTROL 1 | 4 |
| MTX 113 | ELECTRICAL POWER DISTRIBUTION | 2 |
| MTX 117 | MECHATRONICS 1 | 2 |
| MTX 120 | MECHANICAL DRIVES 1 | 3 |
| MTX 121 | SEMICONDUCTORS I | 3 |
| MTX 123 | PICK AND PLACE ROBOT | 3 |
| MTX 127 | PIPING | 2 |
| MTX 130 | PROGRAMMABLE LOGIC CONTROLLERS 1 | 4 |
| MTX 150 | MECHANICAL DRIVES 2 | 2 |
| MTX 153 | DC DRIVES | 4 |
| MTX 210 | ELECTRO-FLUID POWER | 4 |
| MTX 216 | MECHATRONICS 2 | 5 |
| MTX 220 | WORKPLACE ORGANIZATION AND PRACTICES | 2 |
| MTX 223 | WORK TEAMS AND PRODUCT DESIGN | 3 |
| MTX 225 | SPEED CONTROL SYSTEMS | 2 |
| MTX 227 | MECHANICAL DRIVES 3 | 4 |
| MTX 230 | LASER ALIGNMENT | 2 |
| MTX 250 | ADVANCED PROGRAMMABLE LOGIC CONTROLLERS | 4 |
| MTX 260 | ADVANCED PNEUMATICS AND VACUUM | 3 |
| MTX 270 | CAPSTONE | 3 |
| MTX 285 | PROJECT MANAGEMENT AND LEAN MANUFACTURING | 2 |
| MTX 295 | ORGANIZATIONAL ENTREPRENEURSHIP | 3 |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain 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.
- Assimilate/interpret technical and nontechnical descriptions to form a solution.

MEDICAL ASSISTANT

Medical Assistants maintain the daily workflow of a medical office. Work activities vary depending on the medical setting but often include customer service, administrative and clinical tasks. Medical assistants work directly with physicians and patients to ensure a productive experience in a variety of healthcare environments. The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assisting responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) learning competencies. The Clark College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates of the Clark College Medical Assisting program are eligible to sit for the American Association of Medical Assistants (AAMA)'s Certified Medical Assistant (CMA) examination, a national certification for Medical Assistants. To gain employment as a Certified Medical Assistant, the student must graduate from the program and pass the CMA examination.

Commission on Accreditation of Allied Health Education Programs
www.caahep.org (<http://www.caahep.org>)
 25400 US Highway N
 Suite 158
 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 (<http://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/ (<http://www.ncctinc.com/>)

American Association of Medical Assistants
www.aama-ntl.org (<http://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 term 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:

| Code | Title | Credits/ Units |
|----------|--|-------------------|
| BMED 103 | MATH FOR HEALTH CARE PROFESSIONALS | 3 |
| BMED 110 | MEDICAL TERMINOLOGY I | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II | 3 |
| BMED 116 | MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I | 3 |

Select one from the following:

| | | |
|----------|---|---|
| BTEC 107 | BUSINESS ENGLISH | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| ENGL&101 | ENGLISH COMPOSITION I | |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |

Select one from the following:

| | | |
|---------------------|---|---|
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY | |
| BIOL 164 & BIOL 165 | HUMAN BIOLOGY and HUMAN BIOLOGY LAB | |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HEOC 130 | PHARMACOLOGY FOR HEALTH ASSISTANTS | 3 |

- 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: English REadiness Assessment Score placing students in ENGL&101 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) (p. 110)
- Medical Assisting (AAT) (p. 111)

Medical Assistant (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

The program description language is for the Medical Billing/Coding program, not Medical Assisting. The language should be:

Medical Assistants maintain the daily workflow of a medical office. Work activities vary depending on the medical setting but often include customer service, administrative and clinical tasks. Medical assistants work directly with physicians and patients to ensure a productive experience in a variety of healthcare environments. The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assisting responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) learning competencies. The Clark College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates of the Clark College Medical Assisting program are eligible to sit for the American Association of Medical Assistants (AAMA)'s Certified Medical Assistant (CMA) examination, a national certification for Medical Assistants. To gain employment as a Certified Medical Assistant, the student must graduate from the program and pass the CMA examination.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Select one from the following: | | 5 |
| BTEC 107 | BUSINESS ENGLISH | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| ENGL&101 | ENGLISH COMPOSITION I | |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| BMED 103 | MATH FOR HEALTH CARE PROFESSIONALS | 3 |
| Subtotal | | 3 |
| <i>Human Relations</i> | | |
| BMED 166 | MEDICAL ASSISTANT PRACTICUM ¹ | 6 |
| Subtotal | | 6 |
| Major Area Requirements | | |
| BMED 110 | MEDICAL TERMINOLOGY I | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II | 3 |
| BMED 112 | INTRODUCTION TO PATHOPHYSIOLOGY | 5 |
| BMED 116 | MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I | 3 |
| BMED 117 | MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II | 3 |
| BMED 129 | MEDICAL REIMBURSEMENT | 5 |
| BMED 137 | THERAPEUTIC COMM SKILLS FOR HEALTH PROF | 3 |
| BMED 138 | LEGAL ASPECTS OF THE MEDICAL OFFICE | 2 |
| BMED 139 | MA ASSISTANT EXAMINATION REVIEW | 2 |
| BMED 163 | MEDICAL OFFICE CLINICAL PROCEDURES I (with lab) | 6 |

| | | |
|--------------------------------|---|----|
| BMED 164 | MEDICAL OFFICE CLINICAL PROCEDURES II (with lab) ² | 6 |
| BMED 165 | MEDICAL OFFICE LABORATORY PROCEDURES ² | 4 |
| Select one from the following: | | 3 |
| BTEC 101 | BEGINNING KEYBOARDING ^{3,4} | |
| BTEC 103 | REFRESHER KEYBOARDING ^{3,4} | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY ² | 4 |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HEOC 120 | AIDS EDUCATION | 1 |
| HEOC 130 | PHARMACOLOGY FOR HEALTH ASSISTANTS | 3 |
| HLTH 124 | HEALTHCARE PROVIDER CPR AND FIRST AID | 1 |
| Total Credits/Units | | 80 |

¹ Practicum is a non-paid, supervised work experience.

² Students pursuing the A.A.S. degree should take BIOL 164/BIOL 165 or another approved science elective. HEOC 100 will not satisfy degree requirements as outlined in the Clark College catalog.

³ Register for BTEC 100.

⁴ Three credits/units required.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/381B/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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain 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)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- 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)

Medical Assisting (AAT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

One of the most complex processes involved in the practice of medicine is keeping billing procedures and medical records accurate. To ensure that payments Medical Assistants maintain the daily workflow of a medical office. Work activities vary depending on the medical setting but often include customer service, administrative and clinical tasks. Medical assistants work directly with physicians and patients to ensure a productive experience in a variety of healthcare environments. The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assisting responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) learning competencies. The Clark College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates of the Clark College Medical Assisting program are eligible to sit for the American Association of Medical Assistants (AAMA)'s Certified Medical Assistant (CMA) examination, a national certification for Medical Assistants. To gain employment as a Certified Medical Assistant, the student must graduate from the program and pass the CMA examination.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Select from the following: | | 5 |
| BTEC 107 | BUSINESS ENGLISH | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| ENGL&101 | ENGLISH COMPOSITION I | |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| BMED 103 | MATH FOR HEALTH CARE PROFESSIONALS | 3 |
| BMED 105 | STATISTICS FOR HEALTH CARE PROFESSIONALS | 2 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&230 | SMALL GROUP COMMUNICATION | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| BMED 110 | MEDICAL TERMINOLOGY I | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II | 3 |
| BMED 112 | INTRODUCTION TO PATHOPHYSIOLOGY | 5 |
| BMED 116 | MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I | 3 |
| BMED 117 | MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II | 3 |
| BMED 129 | MEDICAL REIMBURSEMENT | 5 |
| BMED 130 | MEDICAL CODING - CPT/HCPCS | 4 |
| BMED 132 | MEDICAL CODING ICD-9-CM/ICD-10 | 5 |
| BMED 137 | THERAPEUTIC COMM SKILLS FOR HEALTH PROF | 3 |

| | | |
|--------------------------------|--|----|
| BMED 138 | LEGAL ASPECTS OF THE MEDICAL OFFICE | 2 |
| BMED 139 | MA ASSISTANT EXAMINATION REVIEW | 2 |
| BMED 163 | MEDICAL OFFICE CLINICAL PROCEDURES I (with lab) | 6 |
| BMED 164 | MEDICAL OFFICE CLINICAL PROCEDURES II (with lab) | 6 |
| BMED 165 | MEDICAL OFFICE LABORATORY PROCEDURES | 4 |
| BMED 166 | MEDICAL ASSISTANT PRACTICUM | 6 |
| Select one from the following: | | 3 |
| BTEC 101 | BEGINNING KEYBOARDING ^{1,2} | |
| BTEC 103 | REFRESHER KEYBOARDING ^{1,2} | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY | 4 |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HEOC 120 | AIDS EDUCATION | 1 |
| HEOC 130 | PHARMACOLOGY FOR HEALTH ASSISTANTS | 3 |
| HLTH 124 | HEALTHCARE PROVIDER CPR AND FIRST AID | 1 |
| Total Credits/Units | | 96 |

¹ Students should register for BTEC 100.

² Three credits/units required.

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (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)
- 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)

MEDICAL BILLING AND CODING

One of the most complex processes involved in the practice of medicine is keeping billing procedures and medical records accurate. To ensure that payments are properly billed and paid, the health care and insurance industries maintain a standardized coding system for all diagnoses and procedures. The complexities of the health insurance system call for the expertise of a medical billing and coding specialist. Clark College's Medical Billing and Coding program prepares graduates for work in a variety of healthcare settings such as in a physician's office, at a billing company, an outpatient clinic, or an insurance company. Medical billing & coding graduates are eligible to obtain an array of certifications through the American Association of Medical Coders and the American Health Information Management Association.

The Medical Billing/Coding Specialist program prepares individuals for employment in outpatient office or inpatient hospital settings, healthcare claims processing, and home-remote coding. Training in medical billing includes completion of standard industry claim forms as well as the processing of insurance claims. Coding instruction includes ICD, CPT, HCPCS, and the use of MSDRGs.

Graduates will gain highly marketable skills that are compatible with today's healthcare industry needs. The need for trained individuals to fill these jobs have never been greater.

BMED courses are not limited entry and students may begin the coursework any term.

Commission on Accreditation of Allied Health Education Programs
www.caahep.org (<http://www.caahep.org>)

25400 US Highway N
Suite 158
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 (<http://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/ (http://www.ncctinc.com)

American Association of Medical Assistants
www.aama-ntl.org (<http://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 term entry.

- Medical Billing/Coding Professional (AAT) (p. 112)
- Medical Billing/Coding Specialist (CP) (p. 113)

Medical Billing/Coding Professional (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| | or PTWR 135 INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| BMED 103 & BMED 105 | MATH FOR HEALTH CARE PROFESSIONALS and STATISTICS FOR HEALTH CARE PROFESSIONALS | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| | or CMST&230 SMALL GROUP COMMUNICATION | |
| Subtotal | | 5 |
| Major Area Requirements | | |
| BMED 110 | MEDICAL TERMINOLOGY I | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II | 3 |
| BMED 112 | INTRODUCTION TO PATHOPHYSIOLOGY | 5 |
| BMED 116 | MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I | 3 |
| BMED 129 | MEDICAL REIMBURSEMENT | 5 |
| BMED 130 | MEDICAL CODING - CPT/HCPCS | 4 |
| BMED 132 | MEDICAL CODING ICD-9-CM/ICD-10 | 5 |
| BMED 133 | INTERMEDIATE MEDICAL CODING | 5 |

| | | |
|--------------------------------|--|-------|
| BMED 138 | LEGAL ASPECTS OF THE MEDICAL OFFICE | 2 |
| BMED 140 | LEGAL ASPECTS OF HEALTH INFORMATION | 2 |
| BMED 222 | HEALTH INFORMATION PROCEDURES | 5 |
| BMED 226 | MEDICAL OFFICE PRACTICUM | 3 |
| or BMED 250 | MEDICAL OFFICE CAPSTONE PRACTICUM | |
| BMED 227 | HEALTH DATA CONTENT AND STRUCTURE | 3 |
| BMED 233 | INTRODUCTION TO PATIENT NAVIGATION & ADVOCAC | 5 |
| BMED 242 | INTERMEDIATE ANATOMY AND PHYSIOLOGY | 3 |
| BTEC 100 | KEYBOARDING | 1-3 |
| BTEC 135 | 10-KEY CALCULATOR | 1 |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| Select one from the following: | | 4-5 |
| BIOL 164 | HUMAN BIOLOGY | |
| & BIOL 165 | and HUMAN BIOLOGY LAB | |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY | |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HI 202 | INTRODUCTION TO HEALTH CARE QUALITY | 3 |
| HLTH 124 | HEALTHCARE PROVIDER CPR AND FIRST AID | 1 |
| Total Credits/Units | | 92-93 |

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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- 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-9/10 and CPT coding principles.
- Demonstrate the ability to work as a team member to accomplish a task.
- Communicate effectively with peers, patients, and health care professionals through written and oral communications.
- Accurately process medical billing claims.
- Solve quantitative problems and interpret the solutions.
- Communicate with various audiences using a variety of methods.
- Demonstrate interpersonal/human relations skills.

Medical Billing/Coding Specialist (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog

via the the Academic Plan links on the right for a desired program or a specific course information.

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 term.

| Code | Title | Credits/Units |
|---------------------------------------|--|---------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| <i>Computational Skills</i> | | |
| BMED 103 | MATH FOR HEALTH CARE PROFESSIONALS | 3 |
| <i>Human Relations</i> | | |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| or CMST&230 | SMALL GROUP COMMUNICATION | |
| Major Area Requirements | | |
| BMED 105 | STATISTICS FOR HEALTH CARE PROFESSIONALS | 2 |
| BMED 110 | MEDICAL TERMINOLOGY I | 3 |
| BMED 111 | MEDICAL TERMINOLOGY II | 3 |
| BMED 112 | INTRODUCTION TO PATHOPHYSIOLOGY | 5 |
| BMED 116 | MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I | 3 |
| BMED 129 | MEDICAL REIMBURSEMENT | 5 |
| BMED 130 | MEDICAL CODING - CPT/HCPSCS | 4 |
| BMED 132 | MEDICAL CODING ICD-9-CM/ICD-10 | 5 |
| BMED 133 | INTERMEDIATE MEDICAL CODING | 5 |
| BMED 138 | LEGAL ASPECTS OF THE MEDICAL OFFICE | 2 |
| BMED 226 | MEDICAL OFFICE PRACTICUM | 3 |
| or BMED 250 | MEDICAL OFFICE CAPSTONE PRACTICUM | |
| BMED 233 | INTRODUCTION TO PATIENT NAVIGATION & ADVOCAC | 5 |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| Select one from the following: | | 4-5 |
| BIOL 164 | HUMAN BIOLOGY | |
| & BIOL 165 | and HUMAN BIOLOGY LAB | |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY | |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |

| | | |
|---------------------|---------------------------------------|-------|
| HLTH 124 | HEALTHCARE PROVIDER CPR AND FIRST AID | 1 |
| Total Credits/Units | | 69-70 |

| Code | Title | Credits/ Units |
|------|-------|-------------------|
|------|-------|-------------------|

Recommended Elective (Not Required)

| | | |
|----------|-------------------------------------|---|
| BMED 140 | LEGAL ASPECTS OF HEALTH INFORMATION | 2 |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |

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

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/313A/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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate use of medical office software to complete medical office tasks (billing and coding).
- Apply policies and principles of medical reimbursement.
- Accurately code using ICD-9 and CPT coding principles.
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Accurately process medical billing claims

MUSIC

The Music program at Clark offers students an abundance of experiences in music theory, instrumental and vocal performance training, music appreciation and music history. Courses are designed to prepare the music major for advanced studies for transfer to a four-year bachelor's music degree while also providing an enriching experience to the non-music major with the skills and background to fully enjoy music as a cultural pursuit.

- Associate in Music DTA/MRP (AA) (p. 115)

Associate in Music DTA/MRP (AA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|--------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Course Options (p. 326) | | 10 |
| Subtotal | | 10 |
| <i>Quantitative Skills</i> | | |
| MATH&107 | MATH IN SOCIETY | 5 |
| Subtotal | | 5 |
| <i>Humanities</i> | | |
| MUSC&141 | MUSIC THEORY I | 5 |
| MUSC&142 | MUSIC THEORY II | 5 |
| Select five credits/units from other disciplines (p. 326) | | 5 |
| Subtotal | | 15 |
| <i>Social Sciences</i> | | |
| Selected from at least two disciplines (p. 327) ¹ | | 15 |
| Subtotal | | 15 |
| <i>Natural Sciences</i> | | |
| Selected from at least two disciplines (p. 327) ² | | 15 |
| Subtotal | | 15 |
| Major Area Requirements ³ | | |
| MUSC&121 | EAR TRAINING 1 | 1 |
| MUSC&122 | EAR TRAINING 2 | 1 |
| MUSC&123 | EAR TRAINING 3 | 1 |
| MUSC&221 | EAR TRAINING 4 | 1 |
| MUSC&222 | EAR TRAINING 5 | 1 |
| MUSC&223 | EAR TRAINING 6 | 1 |
| MUSC&143 | MUSIC THEORY III | 5 |
| MUSC&231 | MUSIC THEORY IV | 3 |
| MUSC&232 | MUSIC THEORY V | 3 |
| MUSC&233 | MUSIC THEORY VI | 3 |
| MUSC 101 | BEGINNING PIANO CLASS | 2 |
| MUSC 201 | INTERMEDIATE PIANO CLASS | 2 |
| <i>Applied Instrument, Piano, or Voice</i> ⁴ | | |
| Select six credits/units from the following: | | 6 |
| All MUSCA Courses (MUSCA101-MUSCA286) | | |

Applied Voice:

| | |
|----------|---------------|
| MUSC 170 | APPLIED VOICE |
| MUSC 171 | APPLIED VOICE |
| MUSC 172 | APPLIED VOICE |
| MUSC 270 | APPLIED VOICE |
| MUSC 271 | APPLIED VOICE |
| MUSC 272 | APPLIED VOICE |

Applied Piano:

| | |
|----------|---------------|
| MUSC 173 | APPLIED PIANO |
| MUSC 174 | APPLIED PIANO |
| MUSC 175 | APPLIED PIANO |
| MUSC 273 | APPLIED PIANO |
| MUSC 274 | APPLIED PIANO |
| MUSC 275 | APPLIED PIANO |

Major Performing Ensemble

Select 12 credits/units from the following: 12

Orchestra:

| | |
|----------|-------------------------|
| MUSC 151 | ORCHESTRA |
| MUSC 152 | ORCHESTRA |
| MUSC 153 | WOMEN'S CHORAL ENSEMBLE |
| MUSC 251 | ORCHESTRA |
| MUSC 252 | ORCHESTRA |
| MUSC 253 | WOMEN'S CHORAL ENSEMBLE |

Concert Band:

| | |
|----------|--------------|
| MUSC 180 | CONCERT BAND |
| MUSC 181 | CONCERT BAND |
| MUSC 182 | CONCERT BAND |
| MUSC 280 | CONCERT BAND |
| MUSC 281 | CONCERT BAND |
| MUSC 282 | CONCERT BAND |

Concert Choir:

| | |
|----------|---------------|
| MUSC 183 | CONCERT CHOIR |
| MUSC 184 | CONCERT CHOIR |
| MUSC 185 | CONCERT CHOIR |
| MUSC 283 | CONCERT CHOIR |
| MUSC 284 | CONCERT CHOIR |
| MUSC 285 | CONCERT CHOIR |

Total Credits/Units 102

¹ No more than 10 credits/units allowed from any one discipline.

² No more than 10 credits/units allowed from any one discipline. At least 10 credits/units in Physical, Biological and/or Earth Sciences. Shall include at least one laboratory course.

³ In-house diagnostic testing and/or auditions might affect the credits/units accepted in theory and ear training. Students are advised to check with the receiving institution.

⁴ In-house auditions might affect the credits/units accepted in this area. Students are advised to check with the receiving institution.

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 communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Meet audition standards for any necessary proficiency exams in music theory for transfer to a four-year school of music.
- Perform a standard body of literature at a proficiency level relevant to pursuit of a BA or BM degree in music.
- Demonstrate musicality through participation in recorded performances.

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) (p. 117)
- Cisco Technologies (AAT) (p. 117)
- Microsoft Technician (CA) (p. 118)
- Network Technologies (AAT) (p. 118)

Cisco Technician (CA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|--------------------------------|--|-------------------|
| Major Area Requirements | | |
| NTEC 103 | IP SUBNETTING | 3 |
| NTEC 125 | INFORMATION SECURITY FUNDAMENTALS | 3 |
| NTEC 132 | WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS | 3 |
| NTEC 142 | CLOUD COMPUTING FUNDAMENTALS | 3 |
| NTEC 151 | LINUX ESSENTIALS | 6 |
| NTEC 220 | DEPLOYING LINUX SERVER SERVICES | 6 |
| NTEC 221 | CISCO CCNA 1:INTRODUCTION TO NETWORKS | 6 |
| NTEC 222 | CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS | 6 |
| NTEC 252 | LINUX ADMINISTRATION 1 | 6 |
| Total Credits/Units | | 42 |

Note: Students will be required to have access to the Internet to complete their coursework.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/644E/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 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.

Cisco Technologies (AAT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| Select one from the following: | | 5 |
| MATH&107 | MATH IN SOCIETY | |
| MATH 111 | COLLEGE ALGEBRA | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | |
| PHIL&120 | SYMBOLIC LOGIC | |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| COLL 101 | COLLEGE ESSENTIALS: INTRODUCTION TO CLARK | 2 |
| Course Options (p. 337) | | 3 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| NTEC 103 | IP SUBNETTING | 3 |
| NTEC 125 | INFORMATION SECURITY FUNDAMENTALS | 3 |
| NTEC 132 | WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS | 3 |
| NTEC 142 | CLOUD COMPUTING FUNDAMENTALS | 3 |
| NTEC 151 | LINUX ESSENTIALS | 6 |
| NTEC 220 | DEPLOYING LINUX SERVER SERVICES | 6 |
| NTEC 221 | CISCO CCNA 1:INTRODUCTION TO NETWORKS | 6 |
| NTEC 222 | CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS | 6 |
| NTEC 223 | CISCO CCNA 3: SCALING NETWORKS | 6 |
| NTEC 224 | CISCO CCNA 4: CONNECTING NETWORKS | 6 |
| NTEC 225 | CISCO CCNA SECURITY | 6 |
| NTEC 242 | DATACENTER VIRTUALIZATION TECHNOLOGY | 6 |
| NTEC 252 | LINUX ADMINISTRATION 1 | 6 |
| NTEC 253 | LINUX ADMINISTRATION 2 | 6 |
| NTEC 299 | CAPSTONE EXPERIENCE: CISCO TECHNOLOGIES | 3 |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (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 Technician (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|--|-------------------|
| Major Area Requirements | | |
| NTEC 103 | IP SUBNETTING | 3 |
| NTEC 125 | INFORMATION SECURITY FUNDAMENTALS | 3 |
| NTEC 132 | WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS | 3 |
| NTEC 142 | CLOUD COMPUTING FUNDAMENTALS | 3 |
| NTEC 151 | LINUX ESSENTIALS | 6 |
| NTEC 220 | DEPLOYING LINUX SERVER SERVICES | 6 |
| NTEC 221 | CISCO CCNA 1:INTRODUCTION TO NETWORKS | 6 |
| NTEC 222 | CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS | 6 |
| NTEC 236 | MICROSOFT SERVER ADMINISTRATOR 3 | 6 |
| Total | | 42 |

Network Technologies (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| or PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING | |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| Select one from the following: | | 5 |
| MATH&107 | MATH IN SOCIETY | |
| MATH 111 | COLLEGE ALGEBRA | |
| PTCS 110 | PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS | |
| PHIL&120 | SYMBOLIC LOGIC | |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| COLL 101 | COLLEGE ESSENTIALS: INTRODUCTION TO CLARK | 2 |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| NTEC 103 | IP SUBNETTING | 3 |
| NTEC 125 | INFORMATION SECURITY FUNDAMENTALS | 3 |

| | | |
|---------------------|---|----|
| NTEC 132 | WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS | 3 |
| NTEC 142 | CLOUD COMPUTING FUNDAMENTALS | 3 |
| NTEC 151 | LINUX ESSENTIALS | 6 |
| NTEC 220 | DEPLOYING LINUX SERVER SERVICES | 6 |
| NTEC 221 | CISCO CCNA 1:INTRODUCTION TO NETWORKS | 6 |
| NTEC 222 | CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS | 6 |
| NTEC 225 | CISCO CCNA SECURITY | 6 |
| NTEC 234 | MICROSOFT SERVER ADMINISTRATOR 1 | 6 |
| NTEC 235 | MICROSOFT SERVER ADMINISTRATOR 2 | 6 |
| NTEC 236 | MICROSOFT SERVER ADMINISTRATOR 3 | 6 |
| NTEC 242 | DATACENTER VIRTUALIZATION TECHNOLOGY | 6 |
| NTEC 252 | LINUX ADMINISTRATION 1 | 6 |
| NTEC 297 | CAPSTONE EXPERIENCE: NETWORK TECHNOLOGIES | 3 |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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 Arts Nursing DTA/MRP degree, and are qualified to take the National Council Examination for licensure as a Registered Nurse.

Clark College's Associate Degree in 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 (<http://www.acenursing.org>)

About the Program

For Financial Aid purposes, the Associate Degree in Nursing DTA/MRP is open enrollment which enables all students who wish to pursue this degree to complete the "Nursing Degree Requirements" (courses in the areas of English, Biological Sciences, Psychology, etc.). The "Nursing Degree Requirements" provide the foundation for the subsequent "Nursing Core" classes (classes with "NURS" prefix). Due to clinical space limitations, although the program of study for the nursing transfer degree is open enrollment, there is a competitive application process for students to be able to begin the "Nursing Core" classes. The instructions in the Nursing Program Guide explain the nursing transfer degree requirements and the competitive application process to be able to begin the Nursing Core classes.

The Nursing Program Guide is posted on the Nursing website at www.clark.edu/clarknursing.

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 Clark's Disability Support Services (http://www.clark.edu/campus-life/student-support/disability_support). 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.

- Pre-Nursing - DTA/MRP (AA) (p. 120)
- Nursing (AA) (p. 122)

Pre-Nursing - DTA/MRP (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

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:

1. Clark requires 3 credits of Health-Physical Education coursework, and
2. 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.

Clark College Equivalents

| Code | Title | Credits/ Units |
|--|--|-------------------|
| Basic Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| <i>Quantitative/Symbolic Reasoning Requirement</i> | | |
| MATH&146 | INTRODUCTION TO STATISTICS | 5 |
| Distribution Requirements | | |
| <i>Humanities</i> | | |
| CMST&220 | PUBLIC SPEAKING (fulfills oral communication requirement) | 5 |
| Select 10 term credits/units of other Humanities, five of which can be CMST (p. 326) | | |
| <i>Social Science</i> | | |
| PSYC&100 | GENERAL PSYCHOLOGY | 5 |
| PSYC&200 | LIFESPAN PSYCHOLOGY | 5 |
| Select five credits/units of Sociology (p. 327) | | |
| <i>Natural Sciences</i> | | |
| Select one from the following: | | 5 |
| BIOL&100 | SURVEY OF BIOLOGY | |
| BIOL 164 & BIOL 165 | HUMAN BIOLOGY and HUMAN BIOLOGY LAB ¹ | |
| or BIOL&160 GENERAL BIOLOGY W/LAB | | |
| BIOL&251 & BIOL&252 & BIOL&253 | HUMAN A & P I and HUMAN A & P II and HUMAN A & P III | 15 |
| OR | | |
| BIOL&241 & BIOL&242 | HUMAN ANATOMY AND PHYSIOLOGY I and HUMAN ANATOMY AND PHYSIOLOGY II | 10 |
| BIOL&260 | MICROBIOLOGY | 5 |
| CHEM&121 | INTRO TO CHEMISTRY: PRE-HEALTH | 5 |
| CHEM&131 | INTRO TO ORGANIC/BIOCHEM | 5 |
| NUTR&101 | NUTRITION ² | 3 |
| Electives | | |
| Elective Courses (p. 328) ³ | | 10 |
| Total Credits/Units | | 90-96 |

¹ BIOL&160 preferred.

² Students need to be aware that Clark College's nutrition class is only three credits/units, not the required five credits/units.

³ Up to 10 additional term credits/units of which a maximum of five credits/units 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

Basic Requirements

Communication Skills

ENGL&102 is required at Northwest University and Walla Walla University.

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.

Distribution Requirements

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.

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/units 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.

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.

Electives

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:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (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)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Demonstrate and clearly explain 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)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Nursing (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|--------------------------------|-------------------|
| Nursing Degree Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Select an additional five credits/units (p. 326) | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&146 | INTRODUCTION TO STATISTICS | 5 |
| <i>Humanities</i> | | |
| Course Options (p. 326) | | 10 |
| <i>Social Sciences</i> | | |
| PSYC&100 | GENERAL PSYCHOLOGY | 5 |
| PSYC&200 | LIFESPAN PSYCHOLOGY | 5 |
| <i>Natural Science</i> | | |
| CHEM&121 | INTRO TO CHEMISTRY: PRE-HEALTH | 5 |
| BIOL&160 | GENERAL BIOLOGY W/LAB | 5 |
| BIOL&260 | MICROBIOLOGY | 5 |
| BIOL&241 | HUMAN ANATOMY AND PHYSIOLOGY I | 5 |

| | | |
|----------|---------------------------------|---|
| BIOL&242 | HUMAN ANATOMY AND PHYSIOLOGY II | 5 |
| NUTR&101 | NUTRITION | 3 |

Nursing Core Requirements*First Term*

| | | |
|----------|-----------------------------------|---|
| NURS 110 | FOUNDATIONS OF NURSING CONCEPTS | 2 |
| NURS 111 | FOUNDATIONS OF CLINICAL NURSING | 3 |
| ENGL 112 | ETHICS AND POLICY IN HEALTHCARE I | 2 |
| NURS 113 | LIFESPAN ASSESSMENT CONCEPTS | 2 |
| NURS 114 | NURSING SKILLS APPLICATION I | 1 |
| NURS 115 | NURSING SKILLS LAB I | 2 |

Second Term

| | | |
|----------|---------------------------------------|---|
| NURS 122 | FAMILY-CENTERED NURSING | 2 |
| PSYC 122 | PSYCHOSOCIAL ISSUES IN HEALTH CARE I | 1 |
| NURS 123 | FAMILY-CENTERED CLINICAL NURSING | 4 |
| PSYC 124 | PSYCHOSOCIAL ISSUES IN HEALTH CARE II | 2 |
| NURS 127 | NURSING SKILLS APPLICATION II | 1 |
| NURS 128 | NURSING SKILLS LAB II | 2 |

Third Term

| | | |
|----------|-------------------------------------|---|
| NURS 135 | MEDICAL SURGICAL NURSING CONCEPTS 1 | 3 |
| NURS 136 | MEDICAL-SURGICAL CLINICAL NURSING I | 5 |
| NURS 137 | NURSING SKILLS APPLICATION III | 1 |
| NURS 138 | NURSING SKILLS LAB III | 2 |
| NUTR 139 | NUTRITION IN HEALTHCARE II | 1 |

Fourth Term

| | | |
|----------|--------------------------------------|---|
| NURS 241 | MEDICAL-SURGICAL NURSING CONCEPTS II | 3 |
| NURS 242 | MEDICAL/SURGICAL CLINICAL NURSING II | 8 |
| NUTR 240 | NUTRITION IN HEALTHCARE III | 1 |

Fifth Term

| | | |
|----------|--|---|
| NURS 251 | MEDICAL-SURGICAL NURSING CONCEPTS III | 2 |
| NURS 252 | ADVANCED HOLISTIC CLINICAL NURSING | 8 |
| PSYC 253 | PSYCHOSOCIAL ISSUES IN HEALTH CARE III | 2 |

Sixth Term

| | | |
|----------|--|---|
| NURS 261 | PROFESSIONAL LEADERSHIP TRANSITION TO PRACTICE | 1 |
| ENGL 273 | ETHICS AND POLICY IN HEALTHCARE II | 3 |
| NURS 262 | PROFESSIONAL LEADERSHIP SENIOR PRACTICUM | 6 |
| NURS 263 | PROFESSIONAL ROLE IN COMMUNITY SERVICE | 1 |
| NURS 264 | CAPSTONE NCLEX PREPARATION | 1 |

| | |
|---------------------|-----|
| Total Credits/Units | 135 |
|---------------------|-----|

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 communication theory to demonstrate effective oral communication skills.(GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- 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.

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.

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

About the Program

For Financial Aid purposes, the Certificate of Proficiency in Pharmacy Technician is open enrollment which enables all students who wish to pursue this program to complete the "Pharmacy Technician Program Requirements" (courses in the areas of English, Sciences, Medical Terminology, etc.). The "Pharmacy Technician Program Requirements" provide the foundation for the subsequent "Pharmacy Technician Core" classes (classes with "PHAR" prefix). Due to clinical space limitations, although the program of study for the pharmacy technician is open enrollment, there is an application process for students to be able to begin the "Pharmacy Technician Core" classes. The instructions in the Pharmacy Technician Program Guide explain the Pharmacy Technician requirements and the application process to be able to begin the Pharmacy Technician Core classes.

The Pharmacy Technician Program Guide is posted on the Pharmacy Technician website (<http://www.clark.edu/academics/programs/pharmacy>).

Program Pathway

Clark College also offers an expanded Pharmacy Technician curriculum leading to an Associate in Applied Technology (AAT) degree in Pharmacy Technician Leadership. This degree program is intended for those students who would like to continue their education beyond the Pharmacy Technician Certificate of Proficiency. Courses offered for the AAT in Pharmacy Technician focus on developing skill sets in leadership, business relations, and professional development.

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) (p. 124)
- Pharmacy Technician Leadership (AAT) (p. 125)

Pharmacy Technician (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|---|-------------------|
| Preliminary Requirements ¹ | | |
| BMED 110 | MEDICAL TERMINOLOGY I ² | 3 |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HEOC 120 | AIDS EDUCATION | 1 |
| Additional Requirements | | |
| Select one from the following: | | 4-5 |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY ² | |
| BIOL 164 & BIOL 165 | HUMAN BIOLOGY and HUMAN BIOLOGY LAB ² | |
| HLTH 124 | HEALTHCARE PROVIDER CPR AND FIRST AID | 1 |
| General Education Requirements | | |
| <i>Communication Skills</i> | | 3-5 |
| Select one of the following: | | |
| ENGL 098 | WRITING FUNDAMENTALS | |
| Course Options (p. 336) | | |
| <i>Computational Skills</i> | | |
| PHAR 110 | PHARMACY CALCULATIONS | 3 |
| <i>Human Relations</i> | | |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| or CMST&230 | SMALL GROUP COMMUNICATION | |
| Major Area Requirements | | |
| BMED 111 | MEDICAL TERMINOLOGY II ² | 3 |
| PHAR 105 | INTRODUCTION TO PHARMACY | 4 |
| PHAR 112 | PHARMACOLOGY I | 5 |
| PHAR 114 | PHARMACY PRACTICE AND TECHNOLOGY | 4 |
| PHAR 118 | PHARMACY EXTERNSHIP I | 4 |
| PHAR 119 | PHARMACY EXTERNSHIP SEMINAR I | 2 |
| PHAR 122 | PHARMACOLOGY II | 5 |
| PHAR 123 | PHARMACY LAW | 2 |
| PHAR 127 | PHARMACY COMPOUNDING | 4 |
| PHAR 128 | PHARMACY EXTERNSHIP II | 4 |

| | | |
|---------------------|--------------------------------|-------|
| PHAR 129 | PHARMACY EXTERNSHIP SEMINAR II | 2 |
| Total Credits/Units | | 65-68 |

¹ Completion of ENGL 098 or equivalent with a grade of "C" or better (2.0) or placement into ENGL&101. Completion of MATH 092 or equivalent with a grade of "C" or better (2.0) or placement into MATH 090/MATH 096 (Must be 7 years current upon program entry).

² Must be seven years current upon program entry and must be completed by the end of the first term.

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 (<http://www.clark.edu/academics/catalog/gainful-employment/399A/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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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.
- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.

Pharmacy Technician Leadership (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/Units |
|--|---|---------------|
| Preliminary Requirements ¹ | | |
| BMED 110 | MEDICAL TERMINOLOGY I ² | 3 |
| BMED 138 | LEGAL ASPECTS OF THE MEDICAL OFFICE | 2 |
| BTEC 149 | COMPUTER APPLICATIONS ESSENTIALS | 3 |
| Select one from the following: | | 4-5 |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY ² | |
| BIOL 164 & BIOL 165 | HUMAN BIOLOGY and HUMAN BIOLOGY LAB ² | |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HEOC 120 | AIDS EDUCATION | 1 |
| HLTH 124 | HEALTHCARE PROVIDER CPR AND FIRST AID | 1 |
| General Education Requirements | | |
| <i>Communications</i> | | |
| Course Options (p. 336) | | 5 |
| Subtotal | | 22-23 |
| <i>Computational Skills</i> | | |
| Course Options (p. 337) | | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&210 | INTERPERSONAL COMMUNICATION | 5 |
| | or CMST&230 SMALL GROUP COMMUNICATION | |
| Subtotal | | 5 |
| Major Area Requirements | | |
| BMED 111 | MEDICAL TERMINOLOGY II ² | 3 |
| PHAR 105 | INTRODUCTION TO PHARMACY | 4 |
| PHAR 110 | PHARMACY CALCULATIONS | 3 |
| PHAR 112 | PHARMACOLOGY I | 5 |
| PHAR 114 | PHARMACY PRACTICE AND TECHNOLOGY (with lab) | 4 |
| PHAR 118 | PHARMACY EXTERNSHIP I | 4 |
| PHAR 119 | PHARMACY EXTERNSHIP SEMINAR I | 2 |
| PHAR 122 | PHARMACOLOGY II | 5 |
| PHAR 123 | PHARMACY LAW | 2 |
| PHAR 127 | PHARMACY COMPOUNDING | 4 |
| PHAR 128 | PHARMACY EXTERNSHIP II | 4 |
| PHAR 129 | PHARMACY EXTERNSHIP SEMINAR II | 2 |
| Additional Requirements | | |
| HDEV 120 | PRACTICAL REASONING AND DECISION MAKING | 3 |
| HDEV 200 | PROFESSIONAL DEVELOPMENT | 2 |
| MGMT 101 | PRINCIPLES OF MANAGEMENT | 3 |
| MGMT 133 | PRODUCTION AND OPERATIONS MANAGEMENT | 3 |
| Electives | | |
| Select a minimum two courses from the following: | | 6-8 |
| ACED 101 | SURVEY OF ADDICTIONOLOGY | |
| BMED 222 | HEALTH INFORMATION PROCEDURES | |
| BUS 110 | CUSTOMER SERVICE | |
| BUS 211 | BUSINESS COMMUNICATIONS | |

| | |
|---------------------|----------------------------|
| MGMT 106 | MOTIVATION AND PERFORMANCE |
| BIOL 180 | BIOETHICS |
| Total Credits/Units | |
| | 91-94 |

- ¹ Completion of ENGL 098 or equivalent with a grade of "C" or better (2.0) or placement into ENGL&101. Completion of MATH 092 or equivalent with a grade of "C" or better (2.0) or placement into MATH 090/MATH 096 (Must be 7 years current upon program entry).
- ² 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 and clearly explain 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.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)

PHLEBOTOMY

Phlebotomy is the practice of drawing blood for analysis, donation or medical testing. A career as a Phlebotomy technician is a rewarding path for someone who desires to work directly with patients. In just two quarters, Clark's Phlebotomy Program prepares students for an entry-level position in a rapidly growing field. With hands-on training from highly experienced faculty, students gain competence in drawing blood using a variety of collection methods with adults, children, and infants. Coursework includes the handling and transportation of blood and non-blood specimens, safety and infection control, specimen processing, and performing CLIA-waived laboratory testing.

Clark's Phlebotomy curriculum places emphasis on quality and follows the most up-to-date Clinical and Laboratory Standards Institute (CLSI) guidelines for phlebotomy. The second quarter of the program includes a clinical practicum in a health care facility providing 'real world' training and direct experience as a medical laboratory team member.

Graduates of the Clark College Phlebotomy program will be eligible for:

- Clark College Certificate of Achievement
- Washington State Phlebotomy Licensure
- National Phlebotomy Certification Exam

About the Program

The Certificate of Achievement in Phlebotomy is open enrollment which enables all students who wish to pursue this program to complete the "Phlebotomy Program Requirements" (courses in the areas of English, Sciences, Medical Terminology, etc.). The "Phlebotomy Program Requirements" provide the foundation for the subsequent "Phlebotomy Core" classes (classes with "PHLE" prefix). Due to clinical space limitations, although the program of study for the Phlebotomy is open enrollment, there is an application process for students to be able to begin the "Phlebotomy Core" classes. The instructions in the Phlebotomy Program Guide explain the Phlebotomy requirements and the application process to be able to begin the Phlebotomy Core classes.

The Phlebotomy Program Guide is posted on the Phlebotomy website at: www.clark.edu/phlebotomy

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) (p. 127)

Phlebotomy (CA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---|--|-------------------|
| Preliminary Requirements | | |
| BMED 110 | MEDICAL TERMINOLOGY I ¹ | 3 |
| ENGL 098 | WRITING FUNDAMENTALS ² | 5 |
| HEOC 104 | HEALTH CARE DELIVERY & CAREER EXPLORATION | 3 |
| HLTH 124 | HEALTHCARE PROVIDER CPR AND FIRST AID | 1 |
| HEOC 120 | AIDS EDUCATION | 1 |
| Select one from the following: ¹ | | 4-5 |
| HEOC 100 | BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY | |
| BIOL 164 & BIOL 165 | HUMAN BIOLOGY and HUMAN BIOLOGY LAB | |
| Program Requirements | | |
| BMED 111 | MEDICAL TERMINOLOGY II ¹ | 3 |
| CMST&210 or CMST&230 | INTERPERSONAL COMMUNICATION or SMALL GROUP COMMUNICATION | 5 |
| PHLE 115 | PHLEBOTOMY EDUCATION W/LAB | 3 |
| PHLE 116 | BASIC LABORATORY FOR THE PHLEBOTOMIST | 3 |
| PHLE 197 | PHLEBOTOMY CLINICAL EXPERIENCE | 5 |
| PHLE 198 | PHLEBOTOMY CLINICAL SEMINAR | 1 |
| Total Credits/Units | | 37-38 |

¹ Course must be seven years current upon program entry.

² Or equivalent with a grade of "C" or better (2.0) or placement into ENGL&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:

- 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) (p. 128)

Physics (AST2)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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 may be needed to satisfy graduation requirements for the Associate in Science degree (<https://catalog.clark.edu/academic-plans/track-2-ast2/general>).

| Code | Title | Credits/ Units |
|---|-----------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| ENGL&101 | ENGLISH COMPOSITION I | 5 |
| Subtotal | | 5 |
| <i>Quantitative Skills</i> | | |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| Subtotal | | 10 |
| <i>Health & Physical Education</i> | | |
| Health Requirement (p. 326) | | 2 |
| Physical Education Activity (p. 326) | | 1 |
| Subtotal | | 3 |
| <i>Humanities & Social Sciences</i> | | |
| Select one from the following: | | 5 |
| CMST&210 | INTERPERSONAL COMMUNICATION | |
| CMST&220 | PUBLIC SPEAKING | |
| CMST&230 | SMALL GROUP COMMUNICATION | |
| Select 10 credits/units from the following: | | 10 |
| Humanities Course Options (p. 326) | | |
| Social Science Course Options (p. 327) | | |
| Subtotal | | 15 |
| Pre-Major Program Requirements | | |
| ENGL&102 | ENGLISH COMPOSITION II | 5 |
| MATH 111 | COLLEGE ALGEBRA | 5 |

| | | |
|--------------------------------------|--|-------|
| or MATH 110 | COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION | |
| MATH&153 | CALCULUS III | 5 |
| MATH 221 | DIFFERENTIAL EQUATIONS | 5 |
| MATH&254 | CALCULUS IV | 5 |
| Electives | | 1-5 |
| Science Sequence Requirements | | |
| CHEM&141 | GENERAL CHEMISTRY I | 4 |
| CHEM&142 | GENERAL CHEMISTRY II | 4 |
| CHEM&143 | GENERAL CHEMISTRY III | 4 |
| CHEM&151 | GENERAL CHEMISTRY LABORATORY I | 1 |
| CHEM&152 | GENERAL CHEMISTRY LABORATORY II | 1 |
| CHEM&153 | GENERAL CHEMISTRY LABORATORY III | 2 |
| PHYS&241 & PHYS&231 | ENGINEERING PHYSICS I and ENGINEERING PHYSICS LAB I | 5 |
| PHYS&242 & PHYS&232 | ENGINEERING PHYSICS II and ENGINEERING PHYSICS LAB II | 5 |
| PHYS&243 & PHYS&233 | ENGINEERING PHYSICS III and ENGINEERING PHYSICS LAB III | 5 |
| Total Credits/Units | | 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:

- 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 a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

POWER, PRIVILEGE, AND INEQUITY

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 Academic Concentration prepares students to identify power, privilege, and inequity as central organizing principles of human experience within the United States. Students who complete this Academic Concentration 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 Academic Concentration would be earned along with any two-year degree, and would be awarded upon graduation.

- Power, Privilege, and Inequity (AC) (p. 129)

Power, Privilege, and Inequity (AC)

| Code | Title | Credits/ Units |
|----------------------------------|--|-------------------|
| Core Courses ¹ | | |
| ECE 133 | REFLECTIVE PRACTICES IN EARLY LEARNING | 3 |
| ENGL 175 | INTRODUCTION TO LGBTQ STUDIES | 5 |
| SOC 131 | RACE AND ETHNICITY IN THE U.S. | 3 |
| WS 101 | INTRODUCTION TO WOMEN'S STUDIES | 5 |
| WS 220 | RACE, CLASS, GENDER AND SEXUALITY | 5 |
| WS 225 | RACISM & WHITE PRIVILEGE IN THE U.S. | 3 |
| Elective Courses | | |
| Select one from the following: | | 3-5 |
| ASL 125 | AMERICAN DEAF CULTURE | |
| ENGL 140 | WOMEN IN LITERATURE | |
| ENGL 176 | NATURE AND THE HUMANITIES | |
| ENGL 254 | INTRODUCTION TO QUEER LITERATURE | |
| ENGL 267 | AMERICAN MULTIETHNIC LIT | |
| HIST&215 | WOMEN IN U.S. HISTORY | |
| HIST&219 | NATIVE AMERICAN HISTORY | |
| HIST 275 | AFRICAN-AMERICAN HISTORY | |
| SOC 230 | DOMESTIC VIOLENCE | |
| Total Credits/Units | | 27-29 |

¹ Each core course below is required. Students must earn a minimum grade of "C."

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 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.

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) (p. 130)

Small Business Management (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

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.

| Code | Title | Credits/ Units |
|---------------------------------------|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | 3-5 |
| BTEC 106 | APPLIED OFFICE ENGLISH or ENGL&101ENGLISH COMPOSITION I | |
| <i>Computational Skills</i> | | |
| BUS 102 | BUSINESS MATH APPLICATIONS | 5 |
| <i>Human Relations</i> | | |
| BTEC 148 | BUSINESS PROFESSIONAL SELF DEVELOPMENT | 3 |
| Business Core Course | | |
| BUS 028 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS& 101 | INTRODUCTION TO BUSINESS | 5 |
| BTEC 100 | KEYBOARDING | 1-3 |
| BTEC 150 | COMPUTER BUSINESS APPLICATIONS | 5 |
| ECON 101 | INTRODUCTION TO ECONOMICS | 3 |
| MGMT 101 | PRINCIPLES OF MANAGEMENT | 3 |
| Major Area Requirements | | |
| BUS 029 | BASIC ACCOUNTING PROCEDURES | 3 |
| BUS 036 | ACCOUNTING APPLICATIONS | 3 |

| | | |
|---------------------|--|-------|
| BUS 115 | SMALL BUSINESS MANAGEMENT | 3 |
| BUS 135 | | 3 |
| BUS& 201 | BUSINESS LAW | 5 |
| BUS 251 | PROFESSIONAL SELLING | 3 |
| BUS 199 | COOPERATIVE WORK EXPERIENCE ¹ | 1-5 |
| Total Credits/Units | | 58-60 |

¹ Minimum of five credits/units must be earned in Cooperative Work Experience.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/257A/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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Prepare a business plan.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Describe the U.S. legal system and the legal environment of business by outlining the basic principles of law that apply to business transactions.

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) (p. 131)
- Survey & Geomatics Technician - Boundary (CP) (p. 131)
- Surveying/Geomatics (AAS) (p. 132)

Survey & Geomatics Technician - GIS (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|---|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| Subtotal | | 5 |

Computational Skills

| | | |
|----------|----------------------|---|
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |

Human Relations

| | | |
|----------|---|---|
| CMST&210 | INTERPERSONAL COMMUNICATION (recommended) | 5 |
| Subtotal | | 5 |

Major Area Requirements

| | | |
|-------------------------|--------------------------|---|
| CADD 140 or ENGR 140 | BASIC AUTOCAD | 4 |
| SURV 104 | COMPUTATION AND PLATTING | 5 |
| SURV 121 or ENGR 121 | FIELD SURVEY I | 5 |
| SURV 122 | FIELD SURVEY II | 5 |
| SURV 123 | PROFESSIONAL ETHICS | 1 |
| SURV 125 | INTRODUCTION TO GIS | 3 |
| SURV 163 | ROUTE SURVEYING | 5 |
| SURV 250 | ARC GIS I | 3 |
| SURV 252 | MAP PROJECTIONS | 2 |
| SURV 253 | INTRODUCTION TO GPS | 2 |

Total Credits/Units 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|-------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |

| | | |
|--------------------------------|--|-----------|
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | 5 |
| Subtotal | | 5 |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| Subtotal | | 5 |
| <i>Human Relations</i> | | |
| CMST&210 | INTERPERSONAL COMMUNICATION (recommended) | 5 |
| Subtotal | | 5 |
| Major Area Requirements | | |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| SURV 104 | COMPUTATION AND PLATTING | 5 |
| SURV 121 | FIELD SURVEY I | 5 |
| or ENGR 121 | FIELD SURVEY I | |
| SURV 122 | FIELD SURVEY II | 5 |
| SURV 123 | PROFESSIONAL ETHICS | 1 |
| SURV 163 | ROUTE SURVEYING | 5 |
| SURV 202 | BOUNDARY SURVEYS | 4 |
| SURV 203 | LEGAL DESCRIPTIONS | 3 |
| SURV 223 | BOUNDARY LAW I | 3 |
| SURV 264 | SURVEY SOFTWARE APPLICATIONS | 4 |
| Total Credits/Units | | 54 |

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (<http://www.clark.edu/academics/catalog/gainful-employment/624D/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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- 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)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--|--|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | 6 |
| CMST&210 | INTERPERSONAL COMMUNICATION (recommended) | |
| PTWR 135 | INTRODUCTION TO APPLIED TECHNICAL WRITING (recommended) | |
| <i>Health & Physical Education</i> | | 3 |
| HPE 220 | INDUSTRIAL HEALTH AND FITNESS (recommended) | |
| <i>Computational Skills</i> | | |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| <i>Human Relations</i> | | 3 |
| CMST&210 | INTERPERSONAL COMMUNICATION (recommended) | |
| <i>Humanities</i> | | |
| Course Options (p. 338) | | 3 |
| <i>Social Sciences</i> | | |
| Course Options (p. 339) | | 3 |
| <i>Natural Sciences</i> | | 3 |
| PHSC 101 | GENERAL PHYSICAL SCIENCE (recommended) | |
| Major Area Requirements | | |
| BTEC 169 | INTRODUCTION TO EXCEL | 3 |
| CADD 140 | BASIC AUTOCAD | 4 |
| or ENGR 140 | BASIC AUTOCAD | |
| ENGR 113 | ENGINEERING SKETCHING AND VISUALIZATION | 2 |
| MATH 111 | COLLEGE ALGEBRA (or higher) | 5 |
| MATH&151 | CALCULUS I (or higher) | 5 |
| SURV 102 | FUNDAMENTALS OF SURVEY (recommended) | 2 |
| SURV 104 | COMPUTATION AND PLATTING | 5 |
| SURV 121 | FIELD SURVEY I | 5 |
| or ENGR 121 | FIELD SURVEY I | |
| SURV 122 | FIELD SURVEY II | 5 |
| SURV 123 | PROFESSIONAL ETHICS | 1 |
| SURV 125 | INTRODUCTION TO GIS | 3 |
| SURV 163 | ROUTE SURVEYING | 5 |
| SURV 202 | BOUNDARY SURVEYS | 4 |
| SURV 203 | LEGAL DESCRIPTIONS | 3 |
| SURV 223 | BOUNDARY LAW I | 3 |
| SURV 225 | SUBDIVISION PLANNING A & PLATTING | 3 |
| SURV 250 | ARC GIS I | 3 |
| SURV 253 | INTRODUCTION TO GPS | 2 |
| SURV 252 | MAP PROJECTIONS | 2 |
| SURV 264 | SURVEY SOFTWARE APPLICATIONS | 4 |
| Total Credits/Units | | 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)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (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.
- 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) (p. 134)
- Flux Core Arc Welding (CA) (p. 134)
- Gas Metal Arc Welding (CA) (p. 134)
- Gas Tungsten Arc Welding (CA) (p. 135)
- Shielded Metal Arc Welding (CA) (p. 135)
- Welding Technician (CP) (p. 135)
- Welding Technologies (AAT) (p. 137)

Welded Sculpture/Fabrication (CC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|-----------------------------|-------------------|
| Major Area Requirements | | |
| ART 295 | WELDED SCULPTURE THEORY I | 1 |
| ART 296 | WELDED SCULPTURE THEORY II | 1 |
| ART 297 | WELDED SCULPTURE THEORY III | 1 |
| WELD 120 | WELDED SCULPTURE LAB I | 3 |
| WELD 121 | WELDING SCULPTURE LAB II | 3 |
| WELD 122 | WELDED SCULPTURE LAB III | 3 |
| Total Credits/Units | | 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)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|---------------------------|-------------------|
| Major Area Requirements | | |
| HLTH 120 | ADULT CPR AND FIRST AID | 1 |
| WELD 102 | INTRODUCTION TO WELDING | 6 |
| WELD 110 | WELDING BLUEPRINT READING | 5 |
| WELD 142 | FLUX CORE ARC WELDING | 6 |
| WELD 143 | FLUX CORE ARC FABRICATION | 6 |
| Total Credits/Units | | 24 |

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

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|---------------------------|-------------------|
| Major Area Requirements | | |
| HLTH 120 | ADULT CPR AND FIRST AID | 1 |
| WELD 102 | INTRODUCTION TO WELDING | 6 |
| WELD 110 | WELDING BLUEPRINT READING | 5 |
| WELD 140 | GAS METAL ARC WELDING | 6 |
| WELD 141 | GAS METAL ARC FABRICATION | 6 |
| Total Credits/Units | | 24 |

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

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|---------------------------|-------------------|
| Major Area Requirements | | |
| HLTH 120 | ADULT CPR AND FIRST AID | 1 |
| WELD 102 | INTRODUCTION TO WELDING | 6 |
| WELD 110 | WELDING BLUEPRINT READING | 5 |
| WELD 240 | GAS TUNGSTEN ARC WELDING | 6 |
| WELD 241 | GAS METAL ARC FABRICATION | 6 |
| Total Credits/Units | | 24 |

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

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|--------------------------------|--------------------------------|-------------------|
| Major Area Requirements | | |
| HLTH 120 | ADULT CPR AND FIRST AID | 1 |
| WELD 102 | INTRODUCTION TO WELDING | 6 |
| WELD 110 | WELDING BLUEPRINT READING | 5 |
| WELD 144 | SHIELDED METAL ARC WELDING | 6 |
| WELD 145 | SHIELDED METAL ARC FABRICATION | 6 |
| Total Credits/Units | | 24 |

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

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|-------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Course Options (p. 336) | | 3 |
| Subtotal | | 3 |
| <i>Computational Skills</i> | | |

| | |
|---|----|
| Course Options (p. 337) | 3 |
| Subtotal | 3 |
| <i>Human Relations</i> | |
| Course Options (p. 337) | 3 |
| Subtotal | 3 |
| Major Area Requirements | |
| HLTH 120 ADULT CPR AND FIRST AID | 1 |
| WELD 102 INTRODUCTION TO WELDING | 6 |
| WELD 110 WELDING BLUEPRINT READING | 5 |
| Select an option from the following: | 12 |
| Option One: | |
| WELD 140 GAS METAL ARC WELDING | |
| WELD 141 GAS METAL ARC FABRICATION | |
| Option Two: | |
| ART 295 WELDED SCULPTURE THEORY I | |
| ART 296 WELDED SCULPTURE THEORY II | |
| ART 297 WELDED SCULPTURE THEORY III | |
| WELD 120 WELDED SCULPTURE LAB I | |
| WELD 121 WELDING SCULPTURE LAB II | |
| WELD 122 WELDED SCULPTURE LAB III | |
| WELD 142 FLUX CORE ARC WELDING | 6 |
| WELD 143 FLUX CORE ARC FABRICATION | 6 |
| WELD 144 SHIELDED METAL ARC WELDING | 6 |
| WELD 145 SHIELDED METAL ARC FABRICATION | 6 |
| WELD 156 WELDING CERTIFICATION | 2 |
| WELD 240 GAS TUNGSTEN ARC WELDING | 6 |
| WELD 241 GAS METAL ARC FABRICATION | 6 |
| Total Credits/Units | 71 |

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

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate proficiency with basic shop drawings through assessments and sketching exercises. Identify and explain multi-view drawings, drawing line conventions, title blocks, bill of materials, dimensions and tolerances. Demonstrate the use and interpretation of welding symbols under AWS A2.4 standards, as they pertain to weld joint geometry.
- Demonstrate the ability to safely use all metal working shop equipment and perform safety inspections of said equipment.
- Demonstrate the ability to successfully weld and understand the processes and equipment used in manual and semi-automatic welding.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW & GMAW welding and cutting processes. Understand and explain the use of specialty wire feed equipment. Apply FCAW/GMAW in out of position welding. Describe the criteria for visual inspection of FCAW/GMAW weldments. Apply OFC and PAC principles of operation to weld assignments
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW welding and cutting processes. Understand and explain the use of FCAW electrodes. Describe the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of FCAW weldments. Describe OFC, PAC and CAG-A principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of common hand tools. Apply GMAW in the assembly of layout projects. Describe the criteria for visual inspection of GMAW weldments. Apply OFC and PAC principles of operation to layout projects.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and 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. Describe OFC and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GTAW welding and cutting processes. Understand and 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. Describe PAW and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, CAC-A and SMAW welding and cutting processes. Understand and 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. Describe OFC and CAC-A principles of operation.
- Identify and use Welding Technology principles of operation, terms and safe practices related to GMAW, FCAW, SAW welding, and OFC & PAC cutting processes. Understand and explain the use of wire electrodes in fabrication. Describe the functions of wire feed power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of wire feed weldments. Identify, select and proper use of layout tools.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, PAW and GTAW welding and cutting processes. Understand and 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. Identify, select and proper use of layout tools.

- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTAW, GMAW, SAW, PAC and Oxy/fuel cutting processes.
- Recognize and respond to emergencies effectively. Assess a victim(s) condition and determine proper care. Administer rescue breathing and CPR to adults. Identify injury prevention strategies. Assess a victim(s) condition and preform appropriate first aid. Determine the appropriate and proper response to situational questions and select the best answer.
- Recognize the many types of metals and their use. Write and speak clearly about the characteristics of metals. Define and use metallurgical terminology on tests, for written and/or oral reports and during individual and group presentations. Analyze lab results and understand their close relationship to everyday living. Apply metallurgical knowledge to welding and machining metals as-well-as other trade uses. Assess the value of metals in everyday use.

| | | |
|---------------------|---------------------------------------|-----|
| WELD 243 | ADVANCED WIRE FEED FABRICATION | 6 |
| WELD 244 | ADVANCED GAS TUNGSTEN ARC WELDING | 6 |
| WELD 245 | ADVANCED GAS TUNGSTEN ARC FABRICATION | 6 |
| MACH 235 | ELEMENTARY METALLURGY | 2 |
| MACH 236 | ELEMENTARY METALLURGY LAB | 2 |
| Total Credits/Units | | 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:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Recognize and respond to emergencies effectively. Assess a victim(s) condition and determine proper care. Administer rescue breathing and CPR to adults. Identify injury prevention strategies. Assess a victim(s) condition and preform appropriate first aid. Determine the appropriate and proper response to situational questions and select the best answer.
- Demonstrate the ability to safely use all metal working shop equipment and perform safety inspections of said equipment.
- Demonstrate the ability to successfully weld and understand the processes and equipment used in manual and semi-automatic welding.
- Demonstrate proficiency with basic shop drawings through assessments and sketching exercises. Identify and explain multi-view drawings, drawing line conventions, title blocks, bill of materials, dimensions and tolerances. Demonstrate the use and interpretation of welding symbols under AWS A2.4 standards, as they pertain to weld joint geometry.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and 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. Describe OFC and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of common hand tools. Apply GMAW in the assembly of layout projects. Describe the criteria for visual inspection of GMAW weldments. Apply OFC and PAC principles of operation to layout projects.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW welding and cutting processes. Understand and explain the use of FCAW electrodes. Describe the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of FCAW weldments. Describe OFC, PAC and CAG-A principles of operation.

Welding Technologies (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

| Code | Title | Credits/ Units |
|---------------------------------------|--------------------------------|-------------------|
| General Education Requirements | | |
| <i>Communication Skills</i> | | |
| Course Options (p. 336) | | 5 |
| <i>Computational Skills</i> | | |
| Course Options (p. 337) | | 5 |
| <i>Human Relations</i> | | |
| Course Options (p. 337) | | 5 |
| Major Area Requirements | | |
| HLTH 120 | ADULT CPR AND FIRST AID | 1 |
| WELD 102 | INTRODUCTION TO WELDING | 6 |
| WELD 110 | WELDING BLUEPRINT READING | 5 |
| Select an option from the following: | | 12 |
| Option One: | | |
| WELD 140 | GAS METAL ARC WELDING | |
| WELD 141 | GAS METAL ARC FABRICATION | |
| Option Two: | | |
| ART 295 | WELDED SCULPTURE THEORY I | |
| ART 296 | WELDED SCULPTURE THEORY II | |
| ART 297 | WELDED SCULPTURE THEORY III | |
| WELD 120 | WELDED SCULPTURE LAB I | |
| WELD 121 | WELDING SCULPTURE LAB II | |
| WELD 122 | WELDED SCULPTURE LAB III | |
| WELD 142 | FLUX CORE ARC WELDING | 6 |
| WELD 143 | FLUX CORE ARC FABRICATION | 6 |
| WELD 144 | SHIELDED METAL ARC WELDING | 6 |
| WELD 145 | SHIELDED METAL ARC FABRICATION | 6 |
| WELD 156 | WELDING CERTIFICATION | 2 |
| WELD 240 | GAS TUNGSTEN ARC WELDING | 6 |
| WELD 241 | GAS METAL ARC FABRICATION | 6 |
| WELD 242 | ADVANCED WIRE FEED WELDING | 6 |

- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, CAC-A and SMAW welding and cutting processes. Understand and 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. Describe OFC and CAC-A principles of operation.
- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTAW, GMAW, SAW, PAC and Oxy/fuel cutting processes.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, PAW and GTAW welding and cutting processes. Understand and 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. Identify, select and proper use of layout tools.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW & GMAW welding and cutting processes. Understand and explain the use of specialty wire feed equipment. Apply FCAW/GMAW in out of position welding. Describe the criteria for visual inspection of FCAW/GMAW weldments. Apply OFC and PAC principles of operation to weld assignments.
- Identify and use Welding Technology principles of operation, terms and safe practices related to GMAW, FCAW, SAW welding, and OFC & PAC cutting processes. Understand and explain the use of wire electrodes in fabrication. Describe the functions of wire feed power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of wire feed weldments. Identify, select and proper use of layout tools.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GTAW welding and cutting processes. Understand and 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. Describe PAW and PAC principles of operation.
- Recognize the many types of metals and their use. Write and speak clearly about the characteristics of metals. Define and use metallurgical terminology on tests, for written and/or oral reports and during individual and group presentations. Analyze lab results and understand their close relationship to everyday living. Apply metallurgical knowledge to welding and machining metals as-well-as other trade uses. Assess the value of metals in everyday use.

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) (p. 139)

Women's Studies (AC)

For students who want expertise in women's issues, this Academic Concentration may be earned along with a regular A.A. degree, and will be awarded upon graduation.

| Code | Title | Credits/ Units |
|----------------------------------|---------------------------------|-------------------|
| Core Courses ¹ | | |
| WS 101 | INTRODUCTION TO WOMEN'S STUDIES | 5 |

| | | |
|--------|-----------------------------------|---|
| WS 201 | WOMEN AROUND THE WORLD | 3 |
| WS 220 | RACE, CLASS, GENDER AND SEXUALITY | 5 |

Electives

Select at least three credits/units from the following:² 9-11

| | |
|----------|--------------------------------------|
| ART 250 | WOMEN ARTISTS THROUGH HISTORY |
| ENGL 140 | WOMEN IN LITERATURE |
| ENGL 175 | INTRODUCTION TO LGBTQ STUDIES |
| ENGL 254 | INTRODUCTION TO QUEER LITERATURE |
| HIST&215 | WOMEN IN U.S. HISTORY |
| HIST 251 | WOMEN IN WORLD HISTORY I |
| HIST 252 | WOMEN IN WORLD HISTORY II |
| HLTH 207 | WOMEN'S HEALTH |
| SOC 230 | DOMESTIC VIOLENCE |
| WS 210 | WOMEN'S CULTURE |
| WS 225 | RACISM & WHITE PRIVILEGE IN THE U.S. |
| WS 280 | SELECTED TOPICS |
| WS 290 | SPECIAL PROJECTS |

Total Credits/Units 22-24

¹ Core courses must be completed with a grade of "C" or better.

² At least three elective credits/units must be WS prefix courses

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:

- Describe foundational concepts in Women's Studies such as: the personal is political; the waves of feminism; the diversity of women's experiences; the difference between sex and gender; the history of feminist activism for social justice; and, women's contributions to culture, politics, history, etc.
- Explain the social construction of identity and difference, analyzing power, privilege and inequality from feminist theoretical perspectives, distinguishing the intersections between gender and other social and cultural identities, such as race, sex, class, ethnicity, national origin, religion, class, ability and sexuality, and locating oneself within the hierarchy of identities.
- Analyze institutional, ideological, and individual components that maintain or challenge systems of oppression in contemporary U.S. society and throughout the world.

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 Jyo

Other Study Abroad

Clark College is a member of the Washington Community College Consortium for Study Abroad (WCCCSA), which offers term-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) (p. 140)

American Sign Language (AC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

For students who want expertise in American Sign Language, this Academic Concentration may be earned along with a regular AA degree, and will be awarded upon graduation.

| Code | Title | Credits/ Units |
|---------------------|-----------------------|-------------------|
| Core Courses | | |
| ASL 125 | AMERICAN DEAF CULTURE | 5 |
| ASL& 221 | AM SIGN LANGUAGE IV | 5 |
| ASL& 222 | AM SIGN LANGUAGE V | 5 |
| ASL& 223 | AM SIGN LANGUAGE VI | 5 |
| CMST&220 | PUBLIC SPEAKING | 5 |
| Total Credits/Units | | 25 |

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:

- Participate in most formal and informal conversations on general topics in ASL.
- Analyze the Deaf culture and American Sign Language, with an appreciation for the linguistic and cultural diversity.
- Manage common interactions using enhanced vocabulary and grammar with fellow classmate using ASL.
- Identify the rules of behavior, values, beliefs and etiquette of Deaf culture.

COURSE DESCRIPTIONS

A

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- Addiction Counselor Education (ACED) (p. 144)
- American Sign Language (ASL) (p. 146)
- Anthropology (ANTH) (p. 147)
- Art (ART) (p. 148)
- Astronomy (ASTR) (p. 153)
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B

- BAS Applied Management (BASAM) (p. 157)
- BAS Human Services (BASHS) (p. 159)
- Biology (BIOL) (p. 160)
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C

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- Communication Studies (CMST) (p. 180)
- Computer Aided Design and Drafting Technology (CADD) (p. 181)
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H

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N

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T

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W

- Welding (WELD) (p. 287)
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ACCOUNTING (ACCT)

PRINCIPLES OF ACCOUNTING I
ACCT&201 5 Credits/Units

55 hours of lecture

Prerequisite: Eligibility for ENGL 101 and MATH 095 or MATH 096 or consent of Instructional Unit.

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. [SE]

PRINCIPLES OF ACCOUNTING II
ACCT&202 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in ACCT 201.

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. [SE]

PRINCIPLES OF ACCOUNTING III
ACCT&203 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in ACCT 201.

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. Formerly BUS 233. [SE]

ADDICTION COUNSELOR EDUCATION (ACED)

SURVEY OF ADDICTIONOLOGY

ACED 101

33 hours of lecture

Prerequisite: ENGL 101 (or ENGL 101).

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. [GE, HR, SE, SS]

INTRODUCTION TO ADDICTIONS COUNSELING SKILLS

ACED 122

33 hours of lecture

Prerequisite: ACED 101 or CDEP 101, and consent of Instructional Unit.

Application of basic counseling theories, including relapse prevention, to an addiction client population. Group, individual and family counseling. Other cultures also addressed. [GE]

GROUP COUNSELING IN ADDICTIONS

ACED 125

33 hours of lecture

Prerequisite: ACED 201 or CDEP 120/201, and consent of Instructional Unit.

Use of group process for modifying individual attitudes and actions. Application of group counseling theories to an addiction client population. [GE]

INTRODUCTION TO COUNSELING FAMILY MEMBERS

ACED 132

33 hours of lecture

Prerequisite: ACED 201 or CDEP 201 (or 120), and consent of Instructional Unit.

Knowledge and skills for working with significant persons in the addicted client's environment. Emphasis on counseling immediate family members. [GE]

LAW AND ETHICS IN ADDICTIONS COUNSELING

ACED 136

33 hours of lecture

Prerequisite: ACED 101 or CDEP 101, and consent of Instructional Unit.

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. [GE]

ADDICTIONS AND MENTAL ILLNESS

ACED 137

33 hours of lecture

Prerequisite: ACED 101 or CDEP 101, and consent of Instructional Unit.

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. [GE]

PREVENTION AND EDUCATION IN THE COMMUNITY

ACED 138

33 hours of lecture

Prerequisite: ACED 101 or CDEP 101, and consent of Instructional Unit.

Application of the Public Health and Social Development models to prevention activities. Knowledge of community resources in developing community education and prevention programs. [GE]

PHARMACOLOGY OF DRUGS OF ABUSE

ACED 160

33 hours of lecture

Prerequisite: ENGL 101 (or ENGL 101) and consent of Instructional Unit.

Pharmacological effects of alcohol and drugs on the human body and mind. [GE]

ADOLESCENT ADDICTION ASSESSMENT & TREATMENT

ACED 164

33 hours of lecture

Prerequisite: ACED 101 and 122, or CDEP 101 and 122, and consent of Instructional Unit.

An examination of adolescent development and the detrimental impact of addiction on youth development. The assessment process and treatment modalities for adolescents are presented. [GE]

AIR- AND BLOOD-BORNE PATHOGENS

ACED 170

33 hours of lecture

Prerequisite: Consent of Instructional Unit.

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. [GE]

THEORIES OF COUNSELING

ACED 201

33 hours of lecture

Prerequisite: ACED 101 or CDEP 101 and PSYC 101, and consent of Instructional Unit.

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. [GE, HR]

MULTI-CULTURAL ADDICTIONS COUNSELING

ACED 202

33 hours of lecture

Prerequisite: ACED 122 or CDEP 122 and ACED 201 or CDEP 120/201, and consent of Instructional Unit.

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. [GE]

CASE MANAGEMENT IN ADDICTION MEDICINE

ACED 203

33 hours of lecture

Prerequisite: ACED 201 or CDEP 120/201, and ACED 122 or CDEP 122, and consent of Instructional Unit.

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. [GE]

ADVANCED TECHNIQUES FOR ADDICTION COUNSEL

ACED 205

33 hours of lecture

Prerequisite: ACED 101 or CDEP 101, ACED 201 or CDEP 120/201, ACED 122 or CDEP 122, and consent of Instructional Unit.

Development of skills needed to establish and maintain effective helping relationships with clients. Integration of relapse prevention counseling in treatment. [GE]

| | | |
|--------------|------------------|-----------------|
| FIELD | PLACEMENT | I |
| ACED 210 | | 6 Credits/Units |

198 hours of clinical

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.

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. [GE]

| | | |
|--------------|------------------|-----------------|
| FIELD | PLACEMENT | II |
| ACED 211 | | 6 Credits/Units |

198 hours of clinical

Prerequisite: Grade of "C" or better in ACED 210 or CDEP 210 and instructor's permission.

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. [GE]

| | |
|-----------------|-----------------|
| SELECTED | TOPICS |
| ACED 280 | 3 Credits/Units |

33 hours of lecture

Prerequisite: ENGL 101.

Special topics in chemical dependence as listed in the term class schedule. May be repeated for credit. [GE]

| | |
|----------------|-----------------|
| SPECIAL | PROJECTS |
| ACED 290 | 5 Credits/Units |

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the Instructional Unit. [GE]

AMERICAN SIGN LANGUAGE (ASL)

AM SIGN LANGUAGE I
ASL& 121 5 Credits/Units
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/Units
55 hours of lecture
Prerequisite: ASL& 121 or consent of the instructor.
Continuation of ASL I, developing skills for the student with a basic knowledge of ASL. Focus on grammar, idioms, vocabulary building, culture and language. [SE, HA]

AM SIGN LANGUAGE III
ASL& 123 5 Credits/Units
55 hours of lecture
Prerequisite: ASL& 122 or consent of the instructor.
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. [SE, HA]

AMERICAN DEAF CULTURE
ASL 125 5 Credits/Units
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/Units
55 hours of lecture
Prerequisite: A grade of "C" or better in ASL& 123, demonstrated equivalent proficiency, or with permission of the instructor.
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. [SE, HA]

AM SIGN LANGUAGE V
ASL& 222 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of "C" or better in ASL& 221, demonstrated equivalent proficiency, or with permission of the instructor.
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. [SE, HA]

AM SIGN LANGUAGE VI
ASL& 223 5 Credits/Units
55 hours of lecture

Prerequisite: A grade of "C" or better in ASL& 222, demonstrated equivalent proficiency, or with permission of the instructor.
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. [SE, HA]

SELECTED TOPICS
ASL 280 3 Credits/Units
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 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department.

ANTHROPOLOGY (ANTH)

INTRODUCTION TO ARCHAEOLOGY
ANTH&204 5 Credits/Units

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/Units

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/Units

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/Units

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]

SPECIAL PROJECTS
ANTH 290 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [SE]

ART (ART)

DRAWING

ART 103 3 Credits/Units

22 hours of lecture / 22 hours of lab

Introduction to drawing with a focus on expressive content and accurate seeing, measurement, and proportion. Assignments stress the use of line, gesture, value, and composition through observations of still life and the figure. Classes may include a nude model. [HB, SE] [PNP]

OBSERVATIONAL

ART 104 4 Credits/Units

22 hours of lecture / 44 hours of lab

Prerequisite: ART 103.

Continuation of ART 103. Analysis and control of value, color, and composition using a variety of techniques and drawing materials. Emphasis on accurate seeing, measurement, and proportion through still life, landscape, and the figure. Classes may include a nude model. [HB, SE] [PNP]

CONTEMPORARY

ART 105 4 Credits/Units

22 hours of lecture / 44 hours of lab

Prerequisite: ART 103.

An interdisciplinary exploration of creative, critical, and analytical approaches to contemporary content and composition in a variety of media. Classes may include a nude model. [HB, SE] [PNP]

CREATIVITY

ART 110 3 Credits/Units

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

ART 115 4 Credits/Units

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

ART 116 4 Credits/Units

22 hours of lecture / 44 hours of lab

Prerequisite: ART 115.

Continuation of ART 115. Color theory and the application of color to specific design problems. Includes designing with computers. [HB, SE] [PNP]

THREE-DIMENSIONAL

ART 117 4 Credits/Units

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 118 4 Credits/Units

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]

INTRODUCTION

ART 120 3 Credits/Units

22 hours of lecture / 22 hours of lab

Introduction to basic materials, editions concepts in the different types of printmaking. Explores various techniques including screen printing, relief printing various photo-sensitive print processes. Stencils will be created through both hand drawn digitally generated artwork. This is an introductory, no prerequisite class, but it will build on some drawing and design skills. [GE, SE, HB][PNP]

PRINTMAKING

ART 121 3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: ART 120.

Builds on the skills learned in ART 120, Introduction to Printmaking and will refine handling of basic materials, editions concepts in the different types of printmaking. Students will continue to explore various techniques including screen printing, monoprinting, relief printing various photo-sensitive print processes. Students are welcome to choose an area of focus with different printing disciplines. Stencils will be created through both hand drawn digitally generated artwork. [GE,SE,HB][PNP]

PRINTMAKING

ART 122 3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: ART 120 and 121.

Builds on the skills learned in ART 120 and ART 121, Introduction to Printmaking and Printmaking II and will refine handling of basic materials, editions concepts in the different types of printmaking. Students will continue to explore various techniques including screen printing, monoprinting, relief printing various photo-sensitive print processes. Student projects are more self-directed and independent in this third class of the Printmaking sequence. Stencils will be created through both hand drawn digitally generated artwork. [HB,GE,SE]

PHOTOGRAPHIC

ART 131 3 Credits/Units

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]

| | | | | | |
|--|--------------------|---------------------|--|---------------|--------------------|
| DARKROOM | | PHOTOGRAPHY | GRAPHIC | DESIGN | EXPLORATION |
| ART 140 | | 4 Credits/Units | ART 172 | | 3 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | 22 hours of lecture / 22 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] | | | 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] | | |
| PHOTOGRAPHY | | II | GRAPHIC | DESIGN | STUDIO |
| ART 141 | | 4 Credits/Units | ART 173 | | 4 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | 22 hours of lecture / 44 hours of lab | | |
| Prerequisite: ART 140 or equivalent or consent of Instructional Unit. Continuation of ART 140. Particular emphasis on self-expression and print quality. Special topics vary from quarter to quarter, but may include medium and large format photography, various image transfer techniques, liquid photographic emulsions, and studio lighting. Practicing effective small group discussion to demonstrate visual literacy. [HB, SE] [PNP] | | | Prerequisite: A grade of "C" or better in CGT 101 or 102, or equivalent computer experience. 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. [HB, SE] | | |
| PHOTOGRAPHY | | III | TYPOGRAPHY | | |
| ART 142 | | 4 Credits/Units | ART 174 | | 4 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | 22 hours of lecture / 44 hours of lab | | |
| Prerequisite: ART 141 or equivalent. Continuation of ART 141. Opportunities to develop additional technical skill and continued exploration of self-expression. [HB, SE] [PNP] | | | Prerequisite: A grade of "C" or better in CGT 101 or 102, or equivalent computer experience. 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. [HB, SE] | | |
| DIGITAL | PHOTOGRAPHY | | | | |
| ART 145 | | 3 Credits/Units | | | |
| 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 | | CERAMICS | I: | POTTERY |
| ART 146 | | 4 Credits/Units | ART 180 | | 4 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | 22 hours of lecture / 44 hours of lab | | |
| Continuation of ART 145. Particular emphasis on digital imagery as self-expression. Refining technical skills, exploring the unique opportunities of the digital medium, and examining current trends in contemporary photography. Special topics vary from quarter to quarter, but may include medium and large format photography, various image transfer techniques, liquid photographic emulsions, and studio lighting. 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] | | | 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] | | |
| DIGITAL | PHOTOGRAPHY | | CERAMICS | II: | POTTERY |
| ART 146 | | 4 Credits/Units | ART 181 | | 4 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | 22 hours of lecture / 44 hours of lab | | |
| Continuation of ART 145. Particular emphasis on digital imagery as self-expression. Refining technical skills, exploring the unique opportunities of the digital medium, and examining current trends in contemporary photography. Special topics vary from quarter to quarter, but may include medium and large format photography, various image transfer techniques, liquid photographic emulsions, and studio lighting. 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] | | | Prerequisite: ART 180. 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. [HB, SE] [PNP] | | |
| ART | | APPRECIATION | CERAMICS | III: | POTTERY |
| ART 151 | | 3 Credits/Units | ART 182 | | 4 Credits/Units |
| 33 hours of lecture | | | 22 hours of lecture / 44 hours of lab | | |
| 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] | | | Prerequisite: ART 181. Combining hand and wheel techniques to create original pieces as sculpture or for specific functions. Mold making, slip casting, underglazing, and kiln firing. [HB, SE] [PNP] | | |
| | | | METAL | ARTS | I |
| | | | ART 189 | | 4 Credits/Units |
| | | | 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] | | |

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| METAL | ARTS | II | ART HISTORY: ANCIENT TO LATE ANTIQUE |
| ART 190 | | 4 Credits/Units | ART 220 |
| 22 hours of lecture / 44 hours of lab | | | 55 hours of lecture |
| Prerequisite: ART 189. | | | 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] |
| 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. [HB, SE] [PNP] | | | |
| METAL | ARTS | III | ART HISTORY: MEDIEVAL-RENAISSANCE |
| ART 191 | | 4 Credits/Units | ART 221 |
| 22 hours of lecture / 44 hours of lab | | | 55 hours of lecture |
| Prerequisite: ART 190. | | | 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] |
| Continuation of ART 190. Design and technical skills applied to casting and forging of metal objects. Overview of contemporary metal artists and their work. [HB, SE] [PNP] | | | |
| COOPERATIVE | WORK | EXPERIENCE | ART HISTORY: BAROQUE-MODERN |
| ART 199 | | 5 Credits/Units | ART 222 |
| 165 hours of clinical | | | 55 hours of lecture |
| Prerequisite: Consent of Instructional Unit. | | | 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] |
| 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. [GE] | | | |
| THE | HUMAN | FIGURE | I |
| ART 203 | | | 4 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | 55 hours of lecture |
| Prerequisite: ART 103 or consent of Instructional Unit. | | | 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] |
| Working from the male and female form in a variety of drawing media. Emphasis on accurate seeing, measuring, and proportion of the human body in space. Classes include a nude model. [HB, SE] | | | |
| THE | HUMAN | FIGURE | II |
| ART 204 | | | 4 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | 55 hours of lecture |
| Prerequisite: ART 203. | | | Survey of visual arts and architecture of the Modern and Postmodern periods and beyond. Topics include how art and architecture were influenced by rapidly changing technologies in Europe and the Americas: how artists use iconography, composition, materials, technique and style to achieve their effects; the impact of art criticism; and artists' reflections on contemporary events and ideologies. We also explore the role of race and gender in the business of art. [HA, SE] |
| Working from the male and female form in a variety of drawing media. Emphasis on expressive power and individual development. Classes include a nude model. [HB, SE] | | | |
| DIGITAL | | ILLUSTRATION | ART IN THE TWENTIETH CENTURY |
| ART 208 | | 4 Credits/Units | ART 223 |
| 22 hours of lecture / 44 hours of lab | | | 55 hours of lecture |
| Concurrent enrollment in ART 273 is encouraged for Graphic Design AFA and CP students. | | | Survey of visual arts and architecture of the Modern and Postmodern periods and beyond. Topics include how art and architecture were influenced by rapidly changing technologies in Europe and the Americas: how artists use iconography, composition, materials, technique and style to achieve their effects; the impact of art criticism; and artists' reflections on contemporary events and ideologies. We also explore the role of race and gender in the business of art. [HA, SE] |
| Prerequisite: CGT 102 and Consent of Graphic Design Program. | | | |
| 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. [HB, SE] | | | |
| PORTFOLIO | | DEVELOPMENT | ART HISTORY: ASIAN ART |
| ART 215 | | 3 Credits/Units | ART 225 |
| 22 hours of lecture / 22 hours of lab | | | 55 hours of lecture |
| Prerequisite: Consent of Instructional Unit. | | | 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] |
| 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. [SE] | | | |
| | | | SURVEY OF NON-WESTERN ART |
| | | | ART 226 |
| | | | 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] |

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|--|----------------|----------------|-----------------|--|--------------------|
| WOMEN | ARTISTS | THROUGH | HISTORY | PUBLICATION | PRODUCTION |
| ART 250 | | | 5 Credits/Units | ART 270 | 9 Credits/Units |
| 55 hours of lecture | | | | 66 hours of lecture / 66 hours of lab | |
| 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] | | | | Prerequisite: Consent of Instructional Unit. | |
| PAINTING | | | I | Design and production skills for publications, intended for Phoenix staff, graphic design students and others interested in the publications field. | |
| ART 257 | | | 4 Credits/Units | 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. [HB, SE] [PNP] | |
| 22 hours of lecture / 44 hours of lab | | | | PUBLICATION | DESIGN |
| Prerequisite: ART 103 or 115. | | | | ART 271 | 4 Credits/Units |
| Introduction to the principles and practice of painting through basic theory, composition, and color. Assignments approach painting observationally through still life, landscape, and the figure with conceptual prompts encouraging expression and criticality. Classes may include a nude model. [HB, SE] | | | | 22 hours of lecture / 44 hours of lab | |
| PAINTING | | | II | Concurrent enrollment in ART 270 is encouraged. | |
| ART 258 | | | 4 Credits/Units | Prerequisite: ART 174, CGT 103 and Consent of Graphic Design Program. | |
| 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. [HB, SE] | |
| Prerequisite: ART 257. | | | | GRAPHIC | DESIGN |
| Intermediate approach to principles and practice of painting through formal and conceptual study. Emphasis is on methods of abstraction and new modes of seeing using line, color, and pattern as expressive elements. Classes may include a nude model. [HB, SE] | | | | ART 272 | HISTORY |
| PAINTING | | | III | 5 Credits/Units | |
| ART 259 | | | 4 Credits/Units | 55 hours of lecture | |
| 22 hours of lecture / 44 hours of lab | | | | A survey of influential individuals, artifacts, technologies and intellectual thought in graphic design from its origins to contemporary practice. | |
| Prerequisite: ART 258. | | | | Emphasis on the development of a visual vocabulary and providing historical and cultural context for design practice. [HA, SE] [PNP] | |
| Advanced study in principles and practice of contemporary painting through the development of a body of work. Emphasis is on a focused independent practice including written artist statement and show proposals. Classes may include a nude model. [HB, SE] | | | | GRAPHIC | DESIGN |
| WATERCOLOR | | | I | STUDIO | II |
| ART 260 | | | 4 Credits/Units | ART 273 | 4 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | | 22 hours of lecture / 44 hours of lab | |
| Prerequisite: ART 103. | | | | Concurrent enrollment in ART 208 is encouraged for Graphic Design AFA and CP students. | |
| 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. [HB, SE] | | | | Prerequisite: ART 173, CGT 102 and Consent of Graphic Design Program. | |
| WATERCOLOR | | | II | 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. [HB, SE] | |
| ART 261 | | | 4 Credits/Units | GRAPHIC | DESIGN |
| 22 hours of lecture / 44 hours of lab | | | | ART 274 | STUDIO |
| Prerequisite: ART 260. | | | | 4 Credits/Units | |
| 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. [HB, SE] | | | | 22 hours of lecture / 44 hours of lab | |
| WATERCOLOR | | | III | Prerequisite: A grade of "C" or better in ART 273. | |
| ART 262 | | | 4 Credits/Units | 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. [HB, SE] | |
| 22 hours of lecture / 44 hours of lab | | | | GALLERY | PREPARATION |
| Prerequisite: ART 261. | | | | ART 278 | 6 Credits/Units |
| 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. [HB, SE] | | | | 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

ART 280

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]

TOPICS

5 Credits/Units

SPECIAL

ART 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [HB]

PROJECTS

6 Credits/Units

WELDED**SCULPTURE****THEORY****I**

ART 295

1 Credit/Unit

11 hours of lecture

Concurrent enrollment in WELD 120 required.

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. [HB]

WELDED**SCULPTURE****THEORY****II**

ART 296

1 Credit/Unit

11 hours of lecture

Concurrent enrollment WELD 121 required.

Prerequisite: ART 295.

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. [HB]

WELDED**SCULPTURE****THEORY****III**

ART 297

1 Credit/Unit

11 hours of lecture

Concurrent enrollment in WELD 122 required.

Prerequisite: ART 296.

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. [HB]

ASTRONOMY (ASTR)

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| INTRO | TO | ASTRONOMY |
| ASTR&101 | | 5 Credits/Units |
| 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 (AUTO)

INTRODUCTION TO TOYOTA AUTO 150

22 hours of lecture / 66 hours of lab

Prerequisite: Must meet Clark Automotive entrance standards and have the recommendation of your sponsoring Toyota/Lexus service management.

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. [GE]

TOYOTA ELECTRICAL I AUTO 151

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 152 and AUTO 153.

Prerequisite: A grade of "C" or better in AUTO 150.

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. [GE]

TOYOTA ELECTRICAL II AUTO 152

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 151 and AUTO 153.

Prerequisite: A grade of "C" or better in AUTO 150.

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. [GE]

TOYOTA BRAKES AUTO 153

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 151 and AUTO 152.

Prerequisite: A grade of "C" or better in AUTO 150.

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. [GE]

TOYOTA INTERNSHIP I AUTO 154

44 hours of lecture / 88 hours of lab

Prerequisite: A grade of "C" or better in AUTO 151, 152, and 153.

First managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the first term 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. [GE]

TOYOTA STEERING AND SUSPENSION AUTO 155

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 156 and AUTO 157.

Prerequisite: A grade of "C" or better in AUTO 154.

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. [GE]

TOYOTA ENGINE PERFORMANCE I AUTO 156

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 155 and AUTO 157.

Prerequisite: A grade of "C" or better in AUTO 154.

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.

TOYOTA ENGINE PERFORMANCE II AUTO 157

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 155 and AUTO 156.

Prerequisite: A grade of "C" or better in AUTO 154.

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.

INTRODUCTION TO DEALERSHIP OPERATIONS AUTO 160

22 hours of lecture / 66 hours of lab

Prerequisite: Must meet Clark Automotive entrance standards and have the recommendation of your sponsoring dealership service management.

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.

ELECTRICAL I AUTO 161

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 162 and AUTO 163.

Prerequisite: A grade of "C" in AUTO 160.

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.

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|---|--------------------|--|---|--------------------------------------|--|
| <p>ELECTRICAL AUTO 162 33 hours of lecture / 110 hours of lab Concurrent enrollment in AUTO 161 and AUTO 163. Prerequisite: A grade of "C" or better in AUTO 160. 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.</p> | II | <p>ENGINE AUTO 167 33 hours of lecture / 110 hours of lab Concurrent enrollment in AUTO 165 and AUTO 166. Prerequisite: A grade of "C" or better in AUTO 164. Instruction regarding the operation, diagnosis, service and repair of engine management systems. Focus on advanced level diagnostics including fuel trim, no DTC's drivability, 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.</p> | PERFORMANCE | II | |
| <p>BRAKES AUTO 163 33 hours of lecture / 110 hours of lab Concurrent enrollment in AUTO 161 and AUTO 162. Prerequisite: A grade of "C" or better in AUTO 160. 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.</p> | II | <p>COOPERATIVE AUTO 199 165 hours of clinical Prerequisite: Consent of Instructional Unit. 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. [GE]</p> | WORK | EXPERIENCE 5 Credits/Units | |
| <p>INTERNSHIP AUTO 164 44 hours of lecture / 88 hours of lab Prerequisite: A grade of "C" or better in AUTO 161, 162 and 163. Provides students with a managed internship experience in an automotive dealership. Students will focus on practicing skills learned throughout their first term 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.</p> | I | <p>TOYOTA AUTO 250 33 hours of lecture / 110 hours of lab Prerequisite: A grade of "C" or better in AUTO 155, 156 and 157. 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. [GE]</p> | CLIMATE | CONTROL 8 Credits/Units | |
| <p>STEERING AUTO 165 33 hours of lecture / 110 hours of lab Concurrent enrollment in AUTO 166 and AUTO 167. Prerequisite: A grade of "C" or better in AUTO 164. 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.</p> | AND | <p>SUSPENSION 8 Credits/Units</p> | <p>TOYOTA AUTO 251 44 hours of lecture / 88 hours of lab Prerequisite: A grade of "C" or better in AUTO 250. Second managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the second term 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. [GE]</p> | INTERNSHIP | II |
| <p>ENGINE AUTO 166 33 hours of lecture / 110 hours of lab Concurrent enrollment in AUTO 165 and AUTO 167. Prerequisite: A grade of "C" or better in AUTO 164. 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.</p> | PERFORMANCE | <p>I 8 Credits/Units</p> | <p>TOYOTA AUTO 252 33 hours of lecture / 110 hours of lab Concurrent enrollment in AUTO 253 and AUTO 254. Prerequisite: A grade of "C" or better in AUTO 251. 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. [GE]</p> | ENGINE | MECHANICAL 8 Credits/Units |
| | | | <p>TOYOTA AUTO 253 33 hours of lecture / 110 hours of lab Concurrent enrollment in AUTO 252 and AUTO 254. Prerequisite: A grade of "C" or better in AUTO 251. 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. [GE]</p> | MANUAL | TRANSMISSION 8 Credits/Units |

AUTOMATIC

AUTO 254

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 252 and AUTO 253.

Prerequisite: A grade of "C" or better in AUTO 251.

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. [GE]

TOYOTA**INTERNSHIP****III**

AUTO 255

44 hours of lecture / 88 hours of lab

Prerequisite: A grade of "C" or better in AUTO 252,253 and 254.

Third managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the third term 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. [GE]

CLIMATE**CONTROL**

AUTO 260

33 hours of lecture / 110 hours of lab

Prerequisite: A grade of "C" or better in AUTO 165, 166 and 167.

Instruction in automotive heating and air conditioning systems used in vehicles. Covers 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. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

INTERNSHIP**II**

AUTO 261

44 hours of lecture / 88 hours of lab

Prerequisite: A grade of "C" or better in AUTO 260.

Provides students with a managed internship experience in a dealership. Students will focus on practicing skills learned throughout their term 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.

ENGINE**MECHANICAL**

AUTO 262

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 263 and AUTO 264.

Prerequisite: A grade of "C" or better in AUTO 261.

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.

TRANSMISSIONS

8 Credits/Units

MANUAL

AUTO 263

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 262 and AUTO 264.

Prerequisite: A grade of "C" or better in AUTO 261.

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.

AUTOMATIC**TRANSMISSIONS**

AUTO 264

8 Credits/Units

33 hours of lecture / 110 hours of lab

Concurrent enrollment in AUTO 262 and AUTO 263.

Prerequisite: A grade of "C" or better in AUTO 261.

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.

INTERNSHIP**III**

AUTO 265

8 Credits/Units

44 hours of lecture / 88 hours of lab

Prerequisite: A grade of "C" or better in AUTO 262, 263 and 264.

Provides students with a managed internship experience in a dealership. Students will focus on practicing skills learned throughout their term 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.

SELECTED**TOPICS**

AUTO 280

8 Credits/Units

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 term class schedule. [GE]

SPECIAL**PROJECTS**

AUTO 290

3 Credits/Units

Prerequisite: Consent of Instructional Unit.

For automotive majors only. Opportunity to plan, organize and complete special projects approved by the department. [GE]

BAS APPLIED MANAGEMENT (BASAM)

FOUNDATIONS OF MANAGEMENT BASAM301 5 Credits/Units

55 hours of lecture

Serves as the core and foundation for the Bachelor of Applied Science in Applied Management Program. It merges both theories and management practices to serve as a practical tool for managers. Stresses good management practices and higher-level decision making by ensuring that current changes in industry and technology are applied to problem-solving and innovative sources for the growth and survival of an organization. [GE]

SOCIAL MEDIA IN BUSINESS BASAM305 5 Credits/Units

55 hours of lecture

With the growth of Internet and the popularity of social media among consumers, companies now communicate with consumers in what is becoming the new wave. Covers the knowledge and theories of these growing areas by illustrating topics such as E-commerce, E-marketing strategy, social media marketing strategy, social consumers in digital communities, and measuring the impact of social media marketing. Primary focus is to understand how marketing activities can be implemented, via Internet and social media, to reach target customers and strategic objectives. [GE]

BUSINESS RESEARCH APPLICATIONS BASAM320 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 146, or MATH 203 and MATH 204, or an equivalent math course.

Introduces students to quantitative and qualitative research methods. Topics include customized research methodology to fit specific types and sizes of businesses and organizations, application of the research results for informed and relevant management decisions, and an examination of ethical research standards. Case methods will be applied to practical situations. [CP]

BUSINESS PRINCIPLES BASAM325 5 Credits/Units

55 hours of lecture

Provides a study of various facets of business, from economic systems to forms of business and from ownership to considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. [GE]

ACCOUNTING PRINCIPLES FOR MANAGERS BASAM330 5 Credits/Units

55 hours of lecture

This is a BASAM foundation course in accounting theory and principles, applications, and language, with emphasis from a manager's perspective for the requirement to measure and control. Students will analyze balance sheets, income statements, cash flow statements, cost behavior, financial statement interrelationships, financial analysis, product costing, and budgetary control systems. Topics include information reporting for planning, coordinating, and monitoring the performance of an organization. [GE]

LEGAL ISSUES IN MANAGEMENT BASAM335 5 Credits/Units

55 hours of lecture

Explores the state and federal laws that affect management behavior and organizational practices, including contracts, business organizations, employment law, product liability, safety issues, and environmental regulations. Special attention is given to issues surrounding business start-up and intellectual property. Each student will develop a portfolio/notebook of topics related to his/her career choice. [GE]

MARKETING FOR MANAGERS BASAM340 5 Credits/Units

55 hours of lecture

Develops the marketing knowledge and skills necessary for a successful manager of a profit business firm or a non-profit organization. Helps students identify and satisfy customers' needs and wants. Focuses on key aspects of marketing for firms both large and small, such as marketing research; target market planning and segmentation; product planning, pricing, promoting, and placement (general distribution); international marketing; and the development of general marketing goals, strategies, and their implementation, with a view toward quality societal standards. Students will develop a comprehensive marketing plan. [GE]

HUMAN RESOURCE MANAGEMENT BASAM400 5 Credits/Units

55 hours of lecture

Studies the fundamental principles and techniques of personnel management and examines the management of human resources from the point of view of the personnel officer, the operational manager, and the employee. Examines the responsibilities of organizational leadership for incorporating human resource issues in strategic planning and initiatives. Emphasis is placed on current legal considerations, issues, and research. [GE]

PROJECT MANAGEMENT BASAM410 5 Credits/Units

55 hours of lecture

Studies the concepts, issues, and approaches important in effectively managing projects. Topics include project selection, project planning, negotiation, budgeting, scheduling, resource allocation, project control, project auditing, and project termination. Topics are viewed from a managerial perspective. [GE]

FINANCIAL

BASAM415

55 hours of lecture

Shows managers how to interface with accounting and finance departments, facilitating their understanding of how firms meet their financial objectives, utilizing financial decision making. Describes financial tools and techniques which can be used to help firms maximize value by improving decisions relating to capital budgeting, capital structure, and working capital management. Topics also include multinational financial management, risk management, mergers, and acquisitions. [GE]

MANAGEMENT

5 Credits/Units

OPERATIONS**AND****LOGISTICS**

BASAM425

5 Credits/Units

55 hours of lecture

Studies the physical movement and storage of goods, such as raw materials, semi-finished and finished goods, and all the associated managerial activities that are important for effective control. Close attention is paid to managerial concepts and responsibilities such as transportation, inventory, warehousing, packaging, materials handling, network design, and customer service. Covers the importance of interrelationships between logistics and production, marketing, financial management, and quality control. [GE]

CAPSTONE: STRATEGIC MANAGEMENT & POLICY

BASAM440

5 Credits/Units

55 hours of lecture

Focuses on the key aspects that must be addressed for sustained organizational success, effective problem solving, and the capture of opportunities from the perspective of the general manager or the entrepreneur. Topics include strategic issues facing organizations such as the global economy, regulatory changes, competitive pressures, challenges from non-traditional competitors, and the identification and realization of new products; financial analysis, decision-making, communications, and the leadership required to affect and sustain positive organizational change. Complex case studies of both commercial and non-profit entities will be used to immerse the students in the integrated complexities that general managers face. [GE]

APPLIED**MANAGEMENT****INTERNSHIP**

BASAM450

5 Credits/Units

11 hours of lecture / 132 hours of clinical

Designed to provide students with major-related, supervised, and evaluated practical training work experiences which may be paid or voluntary. Students will be graded on the basis of the quality of documented learning acquired through hands-on, new experiences in an actual work setting. The course-related outcomes will be designed and agreed to by the student, the organization providing the internship, the faculty member teaching this course, and the BASAM program lead-faculty member. (Four credits application/one credit seminar). [GE]

BAS HUMAN SERVICES (BASHS)

INTRODUCTION TO HUMAN SERVICES BASHS301

55 hours of lecture

Prerequisite: Admission to the Bachelors of Applied Sciences in Human Services program.

Overviews the role of the Human Services worker including the various settings, types of Human Services for specific populations and the history of the helping professions. Desirable skills and knowledge and personal characteristics for Human Services workers are also discussed. An emphasis on self-awareness required for Human Services workers are discussed with an emphasis placed on self-awareness. [GE]

SYSTEMS AND SOCIAL JUSTICE BASHS302

55 hours of lecture

Prerequisite: Admission to BASHS program.

Designed to improve student knowledge of power, privilege, inequity, and social justice. Students will learn to identify their own social location in relation to others. They will also apply class concepts to case studies in Human Services in order to analyze the impact of systemic oppression on potential clients, learn appropriate methods of resistance and intervention, and develop strategies for implementing social justice.

ETHICS IN HUMAN SERVICES BASHS303

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Explores the concepts of self-awareness in ethical decision-making, including theories of ethical decision making. Provides an overview of federal and state laws pertaining to specific populations and situations in the Human Services field.

PRACTICAL FAMILY THERAPY BASHS304

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Explores practical perspectives on marital and family counseling including an examination of family advocacy, assessment techniques, treatment planning strategies, and use of techniques. Focuses on an integration of family theory and practice.

ADVANCED CO-OCCURRING DISORDERS TREATMENT BASHS305

55 hours of lecture

Prerequisite: Admission to BASHS program.

Provides clinical experience in assessing accurately the various aspects of common co-occurring disorders encountered in the behavioral health field including: personality disorders, mood disorders, bipolar, trauma disorders and other associated DSM-V disorders.

TRAUMA, GRIEF & LOSS BASHS306

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Provides a theoretical and practical framework for working with traumatized and grieving populations and individuals in a broad Human Services context.

MULTICULTURAL COUNSELING IN HS BASHS401

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Presents current theories and practices for working with clients of various cultural, racial, economic, and ethnic backgrounds and subcultures.

HUMAN SERVICES INTERVENTION & ADVOCACY BASHS402

55 hours of lecture

Prerequisite: Admission to BASHS program.

Practical application of theory in counseling and advocacy for Human Services populations in various settings. Emphasis is on developing a personal awareness of strengths and personal challenges in counseling and advocacy and integrating responding skills and theoretical orientations.

RESEARCH & EVALUATION METHODOLOGIES IN HS BASHS403

55 hours of lecture

Prerequisite: Admission to the BASHS program; a grade of "C" or better in MATH 146.

Focuses on critical understanding of qualitative and quantitative research methods and program evaluation employed in the fields of Human Services that empower and promote social and economic justice and respect for cultural and social diversity. Students will gain an understanding of the various research methods, program evaluation techniques, qualitative quantitative data analysis techniques, data management skills, and ethical issues around research.

ADVANCED CASE MANAGEMENT IN HS BASHS404

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Explores the clinical practice of working from an accurate psych-social assessment to the necessary steps in the development of an appropriate treatment plan. A previous knowledge of ASAM and the use of the DSM-V is recommended.

HUMAN SERVICES FIELD PLACEMENT I BASHS410

165 hours of clinical

Prerequisite: Completion of 35 credits of BASHS courses with a "C" or better.

Experiential learning in a Human Services environment. Students will assist in providing direct therapeutic, educational, referral, support and outreach services to those clients and family members of that service provider. Credits must include ACED 122.

HUMAN SERVICES FIELD PLACEMENT II BASHS411

165 hours of clinical

Prerequisite: Completion of 35 credits of BASHS courses with a "C" or better, including BASHS 403 and 410.

Experiential learning in a Human Services environment. Students will assist in providing direct therapeutic, educational, referral, support and outreach services to those clients and family members of that service provider.

BIOLOGY (BIOL)

SURVEY OF BIOLOGY BIOL&100 5 Credits/Units

33 hours of lecture / 44 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/Units

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 ANTIBIOTICS RESEARCH 1 BIOL 105 5 Credits/Units

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]

SMALL WORLD ANTIBIOTICS RESEARCH 2B BIOL 106 5 Credits/Units

33 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in BIOL 105 or consent of Instructional Unit.

Focuses on research to discover new antibiotics to help alleviate the current worldwide crisis of antibiotic-resistant bacteria including microbial cell structure, growth, genetics and antibiotic production, DNA sequencing, PCR, nanopore-based genome sequencing, and bioinformatic analysis. Lab work will focus on determining, analyzing and "mining" the genome sequence of antibiotic-producing bacteria isolated in BIOL 105, with the aim of discovering novel antibiotics. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities. [NS, GE, SE] [PNP]

INTRODUCTION TO WILDLIFE BIOL 139 3 Credits/Units

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/Units

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/Units

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/Units

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/Units

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/Units

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/Units

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/Units

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/Units

44 hours of lecture

Concurrent enrollment in BIOL 165 recommended.

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. Formerly BIOL 160. [NS, SE]

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|---|-----------------|--------------------------------------|---|--|
| HUMAN BIOL 165 22 hours of lab Concurrent enrollment in, or completion of BIOL 164 required. Laboratory study of the structure and function of the human body as it relates to homeostasis, health, disease, and the environment. Formerly BIOL 161. [NS, SE] | BIOLOGY | LAB 1 Credit/Unit | MAJORS BIOL&221 33 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in BIOL 222 or a grade of "B" or better in BIOL 100. Third course of three introductory courses for life science majors. Covers Mendelian genetics, evolution, adaption, speciation, biodiversity, and ecology. BIOL 222 is the first course in the three-course series for majors, to be taken prior to BIOL 223 and BIOL 221. [NS,SE] | ECOLOGY/EVOLUTION 5 Credits/Units |
| HUMAN BIOL 167 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] | | GENETICS 3 Credits/Units | MAJORS BIOL&222 33 hours of lecture / 44 hours of lab Prerequisite: Completion of or concurrent enrollment in CHEM 139 (100) or CHEM 121 (111) or CHEM 141 (131). 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 223 and BIOL 221. [NS,SE] | CELL/MOLECULAR 5 Credits/Units |
| HUMAN BIOL 168 44 hours of lab Prerequisite: A grade of "B-" or better in BIOL 100 or BIOL 164 or BIOL 167 or consent of Instructional Unit. 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. [NS, SE] | GENETICS | LABORATORY 2 Credits/Units | MAJORS BIOL&223 33 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in BIOL 222. Second 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 (second) BIOL 223 and (third) BIOL 221. [NS,SE] | ORGANISMAL 5 Credits/Units |
| BIOETHICS BIOL 180 33 hours of lecture Study of biological science and ethics. Ethical principles and theories are used in solving bioethical dilemmas. Concepts studied include genetic engineering, inherited disorders, cloning, physician assisted suicide, allocation of health resources, organ donation, and environmental ethics. Credit not allowed for both BIOL 180 and HUM 180. [GE, NS, SE] | | 3 Credits/Units | MAJORS BIOL&241 33 hours of lecture / 44 hours of lab Concurrent enrollment in BIOL& 241L. Prerequisite: A grade of "C" or better in BIOL 160 or department approval. The first in a two-term 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. [NS, SE] | PHYS 5 Credits/Units |
| COOPERATIVE BIOL 199 165 hours of clinical Prerequisite: Consent of Instructional Unit. 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. [GE] | WORK | EXPERIENCE 5 Credits/Units | MAJORS BIOL&242 33 hours of lecture / 44 hours of lab Concurrent enrollment in BIOL& 242L. Prerequisite: A grade of "C" or better in BIOL 241 or department approval. The second in a two-term 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. [NS, SE] | FLORERING PLANTS OF THE PACIFIC NORTHWEST BIOL 224 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] |
| FIELD BIOL 208 22 hours of lecture / 286 hours of lab Prerequisite: Completion of a 100- or 200- level biology course, or consent of Instructional Unit. 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. [NS, SE] | STUDIES | IN | HUMAN ANATOMY AND PHYSIOLOGY I BIOL&241 33 hours of lecture / 44 hours of lab Concurrent enrollment in BIOL& 241L. Prerequisite: A grade of "C" or better in BIOL 160 or department approval. The first in a two-term 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. [NS, SE] | NORTHWEST 5 Credits/Units |
| | | BIOLOGY 10 Credits/Units | HUMAN ANATOMY AND PHYSIOLOGY II BIOL&242 33 hours of lecture / 44 hours of lab Concurrent enrollment in BIOL& 242L. Prerequisite: A grade of "C" or better in BIOL 241 or department approval. The second in a two-term 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. [NS, SE] | |

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|--|----------------|--------------|-------------------|------------|--|-----------------|
| HUMAN | A | & | P | I | SELECTED | TOPICS |
| BIOL&251 | | | 5 Credits/Units | | BIOL 280 | 5 Credits/Units |
| 33 hours of lecture / 44 hours of lab | | | | | 55 hours of lecture | |
| Concurrent enrollment in BIOL& 251L. | | | | | 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] | |
| 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. | | | | | SPECIAL | |
| The first in a three-term 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, muscle and membrane physiology. Formerly BIOL 231. Credit is not allowed for both BIOL 251 and BIOL 231. Formerly BIOL 231. [NS, SE] | | | | | BIOL 290 | |
| | | | | | Prerequisite: Written consent of Instructional Unit. | |
| | | | | | Opportunity to plan, organize, and complete special projects approved by department. [SE] | |
| HUMAN | A | & | P | II | | PROJECTS |
| BIOL&252 | | | 5 Credits/Units | | | 5 Credits/Units |
| 33 hours of lecture / 44 hours of lab | | | | | | |
| Concurrent enrollment in BIOL& 252L required. | | | | | | |
| Prerequisite: A grade of "C" or better in BIOL 251 or written consent of Instructional Unit. | | | | | | |
| The second in a three-term 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. [NS, SE] | | | | | | |
| HUMAN | A | & | P | III | | |
| BIOL&253 | | | 5 Credits/Units | | | |
| 33 hours of lecture / 44 hours of lab | | | | | | |
| 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. | | | | | | |
| The third in a three-term 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. [NS, SE] | | | | | | |
| MICROBIOLOGY | | | | | | |
| BIOL&260 | | | 5 Credits/Units | | | |
| 33 hours of lecture / 44 hours of lab | | | | | | |
| Prerequisite: BIOL 160 or consent of instructor. | | | | | | |
| 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. Formerly BIOL 240. [NS, SE] | | | | | | |
| HUMAN | CADAVER | | DISSECTION | | | |
| BIOL 275 | | | 6 Credits/Units | | | |
| 66 hours of lab | | | | | | |
| Dissection of the muscular, circulatory, nervous, digestive and reproductive systems. [SE] | | | | | | |

BUSINESS ADMINISTRATION (BUS)

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| <p>BASIC BUS 028 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]</p> | <p>ACCOUNTING</p> | <p>PROCEDURES 3 Credits/Units</p> | <p>CUSTOMER SERVICE BUS 110 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]</p> |
| <p>BASIC BUS 029 33 hours of lecture Prerequisite: BUS 028. 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. [PNP]</p> | <p>ACCOUNTING</p> | <p>PROCEDURES 3 Credits/Units</p> | <p>SMALL BUSINESS MANAGEMENT BUS 115 55 hours of lecture Designed to help students explore the elements of starting and managing a small business. Topics include conducting a feasibility analysis, finding sources of capital, acquiring critical human resources, managing assets, and dealing with various internal and external factors, including stakeholders. The foundation of the course will enable students to develop a coherent business plan as well as connect with business owners. [GE] [PNP]</p> |
| <p>ACCOUNTING BUS 036 33 hours of lecture Prerequisite: BUS 029 or consent of Instructional Unit. Accounting procedures applied to business simulations. Includes payroll, depreciation of fixed assets, budgeting, maintaining sales and purchase records and preparing financial statements. [PNP]</p> | | <p>APPLICATIONS 3 Credits/Units</p> | <p>ADVERTISING BUS 117 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]</p> |
| <p>INTRODUCTION BUS& 101 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, HR] [PNP]</p> | <p>TO</p> | <p>BUSINESS 5 Credits/Units</p> | <p>COMPUTERIZED ACCOUNTING BUS 130 33 hours of lecture Prerequisite: BUS 028 and 029 or ACCT 201 (or BUS 231). 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. [GE] [PNP]</p> |
| <p>BUSINESS BUS 102 55 hours of lecture Prerequisite: Eligibility for MATH 089 or MATH 092 or higher or a grade of "C" or better in CAP 042 or consent of Instructional Unit. 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. [CP]</p> | <p>MATH</p> | <p>APPLICATIONS 5 Credits/Units</p> | <p>INTRODUCTION TO ENTREPRENEURSHIP BUS 139 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]</p> |
| <p>INTRODUCTION BUS 105 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.</p> | <p>TO INTERNATIONAL</p> | <p>BUSINESS 3 Credits/Units</p> | <p>PERSONAL FINANCE BUS 160 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]</p> |

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| <p>COOPERATIVE WORK BUS 199 165 hours of clinical Prerequisite: Completion of one class with a "C" or better in Business, Economics or Management. 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. Consent of Instructional Unit required. [GE] [PNP]</p> | <p>EXPERIENCE 5 Credits/Units</p> | <p>BUSINESS BUS 211 33 hours of lecture Prerequisite: ENGL 101 (or ENGL 101) or consent of Instructional Unit. 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. [CA,CT,WC,SE]</p> | <p>COMMUNICATIONS 3 Credits/Units</p> |
| <p>BUSINESS BUS& 201 55 hours of lecture Prerequisite: Sophomore standing or consent of Instructional Unit. 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. Formerly BUS 224. [SE]</p> | <p>LAW 5 Credits/Units</p> | <p>PROFESSIONAL BUS 251 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]</p> | <p>SELLING 3 Credits/Units</p> |
| <p>DESCRIPTIVE BUS 203 33 hours of lecture Prerequisite: A grade of "C" or better in MATH 095 or MATH 096 or equivalent or consent of Instructional Unit. 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. [SE]</p> | <p>STATISTICS 3 Credits/Units</p> | <p>PRINCIPLES OF BUS 260 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]</p> | <p>MARKETING 5 Credits/Units</p> |
| <p>INFERENCEAL BUS 204 33 hours of lecture Prerequisite: Completion of BUS 203 or MATH 203 with a "C" or better or consent of Instructional Unit. 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. [SE]</p> | <p>STATISTICS 3 Credits/Units</p> | <p>SELECTED BUS 280 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 term class schedules. [GE]</p> | <p>TOPICS 5 Credits/Units</p> |
| <p>INTRODUCTION TO BUS 210 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]</p> | <p>E-BUSINESS 5 Credits/Units</p> | <p>SPECIAL BUS 290 Prerequisite: Consent of Instructional Unit. Opportunity to plan, organize and complete special projects approved by the department. [GE]</p> | <p>PROJECTS 5 Credits/Units</p> |

BUSINESS TECHNOLOGY (BTEC)

KEYBOARDING

BTEC 100 3 Credits/Units

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, 102, and 190) are taught as individualized instruction through self-paced study. Students register for BTEC 100. At the end of the term, 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

BTEC 101 3 Credits/Units

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 term, registration will automatically be changed to the appropriate course(s). This course is taught on microcomputers. [GE] [PNP]

REFRESHER

BTEC 103 3 Credits/Units

11 hours of lecture / 44 hours of lab
Review of keyboard and basic typing applications, development of speed and accuracy. Students must be able to type at least 30 words per minute by touch to register for this course. Business Technology majors who type at least 30 words per minute by touch must enroll in this course. Continuous enrollment, flexible time, individualized program. Satisfactory completion meets prerequisite for BTEC 120, Document Formatting. [GE]

BEGINNING

COMPUTER

FUNDAMENTALS

BTEC 105 3 Credits/Units

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/Units

33 hours of lecture
Prerequisite: Eligibility for ENGL 098.

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. [CA,GE]

BUSINESS

ENGLISH

BTEC 107 5 Credits/Units

55 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Develop proficiency in the language skills necessary for business writing. Strong emphasis placed on grammar, punctuation, sentence structure, capitalization, subject/verb agreement, and editing. [CA,CT,SE]

INTRODUCTION

TO

OUTLOOK

BTEC 114 1 Credit/Unit

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/Unit

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/Unit

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/Unit

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/Units

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/Units

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/Units

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]

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| 10-KEY BTEC 135 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] | CALCULATOR 1 Credit/Unit | COMPUTER BTEC 150 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] | BUSINESS | APPLICATIONS 5 Credits/Units |
| BUSINESS BTEC 140 22 hours of lecture Concurrent enrollment in BTEC 199. Prerequisite: Written consent of Instructional Unit required. Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP] | TECHNOLOGY | SEMINAR 2 Credits/Units | | |
| BUSINESS BTEC 141 22 hours of lecture Concurrent enrollment in BTEC 199. Prerequisite: Written consent of Instructional Unit required. Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP] | TECHNOLOGY | SEMINAR 2 Credits/Units | | |
| BUSINESS BTEC 143 22 hours of lecture Concurrent enrollment in BTEC 199 required. Prerequisite: Consent of Instructional Unit. Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP] | TECHNOLOGY | SEMINAR 2 Credits/Units | | |
| BUSINESS BTEC 145 22 hours of lecture Concurrent enrollment in BTEC 199 required. Prerequisite: Consent of Instructional Unit. Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP] | TECHNOLOGY | SEMINAR 2 Credits/Units | | |
| PROFESSIONAL BTEC 147 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] | | SELF-DEVELOPMENT 2 Credits/Units | | |
| BUSINESS BTEC 148 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] | PROFESSIONAL | SELF | DEVELOPMENT 3 Credits/Units | |
| COMPUTER BTEC 149 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] | APPLICATIONS | | ESSENTIALS 3 Credits/Units | |
| | | INTRODUCTION TO OFFICE PUBLISHING TOOLS BTEC 155 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] | | 3 Credits/Units |
| | | POWERPOINT BTEC 165 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] | | PRESENTATION 3 Credits/Units |
| | | INTRODUCTION TO EXCEL BTEC 169 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 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] | | 3 Credits/Units |
| | | EXCEL FOR BUSINESS BTEC 170 33 hours of lecture Prerequisite: BTEC 169 and BUS 102 or equivalent score on COMPASS placement or consent of Instructional Unit. 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. [GE] [PNP] | | 3 Credits/Units |
| | | ACCESS FOR BUSINESS BTEC 180 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] | | 3 Credits/Units |

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| <p>E-COMMERCE: INTRO TO BUSINESS ON THE WEB BTEC 195 3 Credits/Units 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]</p> | <p>SELECTED TOPICS BTEC 280 3 Credits/Units 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 term class schedules. [GE]</p> |
| <p>COOPERATIVE WORK EXPERIENCE BTEC 199 3 Credits/Units 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]</p> | <p>SPECIAL PROJECTS BTEC 290 5 Credits/Units 55 hours of lecture Prerequisite: Consent of Instructional Unit. Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]</p> |
| <p>DOCUMENT FORMATTING BTEC 201 3 Credits/Units 11 hours of lecture / 44 hours of lab Prerequisite: BTEC 101 (or 103) and BTEC 120 (or 122). 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. [GE]</p> | |
| <p>SPEED AND ACCURACY BUILDING BTEC 203 3 Credits/Units 11 hours of lecture / 44 hours of lab Prerequisite: BTEC 201 or 102 or consent of Instructional Unit. Emphasis will be placed on correct techniques and appropriate drills to improve speed and accuracy. Cannot receive credit for both BTEC 203 and 010. [GE]</p> | |
| <p>INTRODUCTION TO SHAREPOINT BTEC 207 3 Credits/Units 33 hours of lecture Prerequisite: Completion of BTEC 149 or 150 or BTEC 120 or 122, BTEC 169, and CTEC 102 or consent of Instructional Unit. This course is designed to give students an overview of the content management system SharePoint and its application for use in a business environment. [CP] [PNP]</p> | |
| <p>ADMINISTRATIVE PROCEDURES BTEC 211 5 Credits/Units 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]</p> | |

BUSINESS TECHNOLOGY MEDICAL OFFICE (BMED)

MATH FOR HEALTH CARE PROFESSIONALS BMED 103

33 hours of lecture

Prerequisite: Eligibility for MATH 030 or MATH 092.

Mathematical concepts related to both administrative and dosage calculations for the physician's office, clinic, or emergi-center. [CP]

STATISTICS FOR HEALTH CARE PROFESSIONALS BMED 105

22 hours of lecture

Prerequisite: A grade of "C" or better in BMED 103 or BUS 102.

Introduction to statistical computations and analysis used in healthcare. Topics include patient census, occupancy, length of stay, mortality and morbidity statistics. [CP]

MEDICAL TERMINOLOGY I BMED 110

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

33 hours of lecture

Prerequisite: BTEC 110 or BMED 110.

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. [GE] [PNP]

INTRODUCTION TO PATHOPHYSIOLOGY BMED 112

55 hours of lecture

Prerequisite: A grade of "C" or better in BMED 111 and BIOL 164/165 or HEOC 100.

Introduction to the general mechanisms of systemic disease including etiology, physical signs and symptoms. Etiology focus will include infectious mechanisms, hereditary contributions, 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. [GE] [PNP]

MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I BMED 116

22 hours of lecture / 22 hours of lab

Prerequisite: Completion of, or concurrent enrollment in, BMED 110 and completion of BTEC 149 or 150, or instructor permission.

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. [GE]

MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II BMED 117

22 hours of lecture / 22 hours of lab

Prerequisite: Completion of BMED 116 or instructor permission.

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. [GE]

MEDICAL REIMBURSEMENT BMED 129

55 hours of lecture

Concurrent enrollment in BMED 111.

Prerequisite: A grade of "C" or better in BMED 110.

Overview of inpatient, outpatient health, insurance plans, revenue cycles, health insurance claims, health insurance terminology, reimbursement methodologies for professional services, completion of CMS/1500 and UB-04 billing forms. Topics include compliance issues, fraud and abuse/HIPAA issues, processing various perspective payment systems. [GE] [PNP]

MEDICAL CODING - CPT/HCPCS BMED 130

44 hours of lecture

Prerequisite: A grade of "C" or better in BMED 111.

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 terminology, 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. [GE]

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| MEDICAL BMED 132 55 hours of lecture Prerequisite: A grade of "C" or better in BMED 111. 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. [GE] | CODING 5 Credits/Units | ICD-9-CM/ICD-10 | MA BMED 139 22 hours of lecture Concurrent enrollment in BMED 166 required. Prerequisite: A grade of "C" or better in BMED 163, 164 and 165 or consent of Instructional Unit. 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. [GE] | ASSISTANT | EXAMINATION | REVIEW 2 Credits/Units | |
| INTERMEDIATE BMED 133 55 hours of lecture Prerequisite: A grade of "C" or better in BMED 129, BMED 130 and BMED 132, or consent of Instructional Unit. 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. [GE] | MEDICAL | CODING 5 Credits/Units | LEGAL BMED 140 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] | ASPECTS | OF | HEALTH | INFORMATION 2 Credits/Units |
| MEDICAL BMED 134 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] | OFFICE | SEMINAR 1 Credit/Unit | MEDICAL BMED 163 44 hours of lecture / 22 hours of lab Concurrent enrollment in BMED 130 and HLTH 124 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. 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. [GE] | OFFICE | CLINICAL | PROCEDURES | I 6 Credits/Units |
| THERAPEUTIC BMED 137 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] | COMM | SKILLS | FOR | HEALTH | PROF | PROCEDURES | II 6 Credits/Units |
| LEGAL BMED 138 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] | ASPECTS | OF | THE | MEDICAL | OFFICE | | |

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| MEDICAL OFFICE LABORATORY PROCEDURES BMED 165 22 hours of lecture / 44 hours of lab 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. 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 storage and handling. Quality control measures. Lab safety emphasized. Cannot receive credit for both HEOC 160 and BMED 165. [GE] | MEDICAL DOCUMENT MANAGEMENT AND TECHNOLOGY BMED 228 33 hours of lecture Prerequisite: A grade of "C" or better in BMED 222, or consent of Instructional Unit. 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. |
| MEDICAL ASSISTANT PRACTICUM BMED 166 11 hours of lecture / 165 hours of clinical Concurrent enrollment in BMED 139 required. Prerequisite: A grade of "C" or better in BMED 164, 165 and consent of Instructional Unit. 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. [GE, HR] | HIIM DIRECTED PRACTICE BMED 229 33 hours of clinical Prerequisite: Successful completion of the following: BMED 116, 222 and 228 or Consent of the Instructional Unit. 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, analyzing for completeness, abstracting reports for release of information (ROI), coding, 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. |
| HEALTH INFORMATION PROCEDURES BMED 222 44 hours of lecture / 22 hours of lab Prerequisite: A grade of "C" or better in BMED 103 and 105. 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. [GE] [PNP] | INTRODUCTION TO PATIENT NAVIGATION & ADVOCAC BMED 233 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. |
| MEDICAL OFFICE PRACTICUM BMED 225 11 hours of lecture / 33 hours of clinical Prerequisite: Consent of Instructional Unit. Supervised learning in a clinic, medical center, or other health care facility, practicing medical office administrative responsibilities. [GE, HR] | INTERMEDIATE PATIENT NAVIGATION & ADVOCACY BMED 234 55 hours of lecture Prerequisite: Successful completion with a "C" or better in BMED 233 or consent of the Instructional Unit. 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. |
| MEDICAL OFFICE PRACTICUM BMED 226 11 hours of lecture / 66 hours of clinical Prerequisite: Consent of Instructional Unit. Supervised learning in a clinic, medical center, or other health care facility, practicing medical office administrative responsibilities. [GE, HR] | ADVANCED PATIENT NAVIGATION & ADVOCACY BMED 235 55 hours of lecture Prerequisite: Successful completion with a "C" or better in BMED 234 or consent of the Instructional Unit. 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. |
| HEALTH DATA CONTENT AND STRUCTURE BMED 227 22 hours of lecture / 22 hours of lab Prerequisite: Completion of with a grade of "C" or concurrent enrollment in BMED 222. Analysis and utilization of health record content with emphasis on physician's orders, clinical lab tests, diagnostic 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. [CP] | AGING AND THE AGING POPULATION BMED 237 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/Units

22 hours of lecture

Topics covered in this course address the specific needs, conditions and support for patients 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/Units

22 hours of lecture / 22 hours of lab

Prerequisite: Successful completion with a "C" or better of BMED 112 and BMED 132.

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.

MEDICAL OFFICE CAPSTONE PRACTICUM

BMED 250 3 Credits/Units

22 hours of lecture / 33 hours of clinical

Prerequisite: A grade of "C" or better in BMED 222 or consent of Instructional Unit.

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. [GE]

SELECTED TOPICS

BMED 280 3 Credits/Units

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 term class schedules.

[GE]

SPECIAL PROJECTS

BMED 290 5 Credits/Units

55 hours of lecture

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]

CAPSTONE

BMED 299 2 Credits/Units

11 hours of lecture / 22 hours of lab

Capstone project to expand knowledge by studying selected BMED topics. Normally taken during the final term of the program. Application of many topics covered in the other program courses in a simulated employee team or small group setting. Projects must be pre-approved by the instructor.

CHEMISTRY (CHEM)

SKILLS FOR PRE-HEALTH CHEMISTRY
CHEM 095 3 Credits/Units

33 hours of lecture

Prerequisite: Eligibility for MATH 093, 095 or equivalent or consent of Instructional Unit.

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. Students cannot receive credit for both CHEM 050 and CHEM 095.

SMALL WORLD ANTIBIOTICS RESEARCH 2A
CHEM 106 5 Credits/Units

33 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in BIOL 105 or consent of Instructional Unit.

Investigates authentic research to discover potentially new antibiotics. Overview of basic chemical concepts including a chemical history of antibiotics, their sources and discovery, and modes of action in bacteria. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities.

CHEMICAL CONCEPTS W/LAB
CHEM&110 5 Credits/Units

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/Units

44 hours of lecture / 22 hours of lab

Prerequisite: Eligibility for MATH 146.

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. Formerly CHEM 111. [NS, SE]

INTRO TO ORGANIC/BIOCHEM
CHEM&131 5 Credits/Units

44 hours of lecture / 22 hours of lab

Prerequisite: Grade of "C" or better in CHEM 121.

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. Formerly CHEM 112. [NS,SE]

GENERAL CHEMISTRY PREPARATION
CHEM&139 4 Credits/Units

44 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093, 095 or 096 or equivalent or consent of Instructional Unit.

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. Formerly CHEM 100. [SE]

GENERAL CHEMISTRY I
CHEM&141 4 Credits/Units

44 hours of lecture

Concurrent enrollment in CHEM& 151, or consent of Instructional Unit.

Prerequisite: Eligibility for College Algebra and a grade of "C" or better in CHEM 139 or equivalent or recommending score on Clark's general chemistry placement test.

First of a 3-term 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. [NS, SE]

GENERAL CHEMISTRY II
CHEM&142 4 Credits/Units

44 hours of lecture

Concurrent enrollment in CHEM& 152, or consent of Instructional Unit.

Prerequisite: A grade of "C" or better in CHEM 141 and CHEM 151.

Second of a 3-term 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. [NS, SE]

GENERAL CHEMISTRY III
CHEM&143 4 Credits/Units

44 hours of lecture

Concurrent enrollment in CHEM& 153 is recommended.

Prerequisite: A grade of "C" or better in CHEM 142 and CHEM 152.

Third of a three-term 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. [NS, SE]

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| GENERAL CHEM&151 22 hours of lab First of a 3-term 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] | CHEMISTRY | LABORATORY | I 1 Credit/Unit | ORGANIC CHEM&242 44 hours of lecture 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. Second of a 3-term 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. [NS, SE] | CHEMISTRY | II 4 Credits/Units | |
| GENERAL CHEM&152 22 hours of lab 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. Second of a 3-term lab sequence designed for science and engineering majors, to coincide with CHEM 142 General Chemistry II. Applications of the scientific method by correlating theory with experimental observation. Topics include phenomena of solid and liquid states, colligative properties of aqueous and non-aqueous systems, reaction kinetics, general equilibria, acid/base equilibria, graphing techniques, using technological interfaces to collect and manipulate data, and mathematical calculations to support chemical observations. [NS, SE] | CHEMISTRY | LABORATORY | II 1 Credit/Unit | ORGANIC CHEM&243 44 hours of lecture Prerequisite: A grade of "C" or better in CHEM 242 and CHEM 252, or consent of Instructional Unit. Third of a 3-term 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. [NS, SE] | CHEMISTRY | III 4 Credits/Units | |
| GENERAL CHEM&153 11 hours of lecture / 22 hours of lab Prerequisite: A grade of "C" or better in CHEM 142 and CHEM 152, or consent of Instructional Unit. Third of a 3-term 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. [NS, SE] | CHEMISTRY | LABORATORY | III 2 Credits/Units | ORGANIC CHEM&251 44 hours of lab 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. First of a 3-term 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. [NS, SE] | CHEMISTRY | LABORATORY | I 1 Credit/Unit |
| COOPERATIVE CHEM 199 165 hours of clinical Prerequisite: Consent of Instructional Unit. 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. [GE] | WORK | EXPERIENCE | III 5 Credits/Units | ORGANIC CHEM&252 44 hours of lab 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. Second of a 3-term 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. [NS, SE] | CHEMISTRY | LABORATORY | II 1 Credit/Unit |
| ORGANIC CHEM&241 44 hours of lecture 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, or consent of Instructional Unit. First of a 3-term 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. [NS, SE] | CHEMISTRY | | I 4 Credits/Units | ORGANIC CHEM&253 11 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in CHEM 242 and CHEM 252, or consent of Instructional Unit. Third of a 3-term 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). [NS, SE] | CHEMISTRY | LABORATORY | III 2 Credits/Units |

SPECIAL

CHEM 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

PROJECTS

6 Credits/Units

COLLEGE AND ACADEMIC PREPARATION (CAP)

JUMPSTART: READING & WRITING
 CAP 005 6 Credits/Units
 66 hours of lecture
Prerequisite: Current CASAS test scores in Math and Reading. 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. Minimum score of 211-255 on CASAS Reading test.

JUMPSTART: MATH
 CAP 006 6 Credits/Units
 66 hours of lecture
Prerequisite: Current CASAS test scores in Math and Reading. Application of basic math skills in real world contexts. Topics may include: integers, basic operations, percents, fractions, decimals, ratios/proportions, mean, median, mode, range, basic probability/statistics, exponents, roots, radicals, order of operation, expressions, equations/inequalities, graphing linear equations, and basic geometry. Upon successful completion of this course, students may transition to HS 21+ courses, apprenticeships, earn the GED credential, or transition to additional workforce opportunities. Score of 211-255 on CASAS Math test.

INTENSIVE FAST TRACK 1: PORTFOLIO
 CAP 011 2 Credits/Units
 22 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. 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/Units
 66 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. 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/Units
 33 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. 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/Units
 33 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. 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/Units
 22 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. 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 6 Credits/Units
 66 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. 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

6 Credits/Units

66 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

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. 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 TRACK2:COMMUNICATION FOR COLLEGE TRANSITION
CAP 021

7 Credits/Units

77 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

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. 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).

WASHINGTON STATE HISTORY
CAP 031

3 Credits/Units

33 hours of lecture

Prerequisite: CASAS scores of 221-255.

For students who want to prepare for the GED or the HS21+ diploma in order to enhance the students' lives in an adult secondary education ABE Washington State history course. Provides a social, political, economic history of the Pacific Northwest with particular emphasis on the state of Washington, including Native American history and gender/ethnic history. Successful completion of the course will award 1 credit for WA State History toward the HS21+ diploma.

WASHINGTON STATE HISTORY & FINE ARTS
CAP 032

7 Credits/Units

77 hours of lecture

Prerequisite: CASAS Reading score of 221 or above.

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. Students will gain a deeper understanding of WA State History and how it relates to Fine Arts. Successful completion of the course will provide 1 credit for WA State History and 1 credit for Fine Arts toward the HS21+ diploma.

US HISTORY & GOVERNMENT
CAP 033

7 Credits/Units

77 hours of lecture

Prerequisite: CASAS Reading score of 221 or above.

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. Students will gain a deeper understanding of US history and government. Successful completion of the course will provide 1 credit for US History and Government toward the HS21+ diploma.

SCIENCE & CONTEMPORARY WORLD PROBLEMS
CAP 034

7 Credits/Units

77 hours of lecture

Prerequisite: CASAS Reading score of 221 or above.

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. Students will gain a deeper understanding of the sciences and how they relate to current world problems. Successful completion of the course will provide 1 credit for Science and 1 credit for Contemporary World Problems toward the HS21+ diploma.

INTEGRATED MATH AND OCCUPATIONS
CAP 040

8 Credits/Units

88 hours of lecture

Prerequisite: CASAS Math score up to 220.

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.

INTEGRATED MATH AND SCIENCE
CAP 042

7 Credits/Units

77 hours of lecture

Prerequisite: CASAS Math score of 221-235 or successful completion of CAP 040 or instructor permission.

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 both CAP 042 and CAP 043 will provide 1 credit for Math and 1 credit for Lab Science toward the HS21+ diploma. Successful completion of CAP 042 without CAP 043 will provide 1 credit for Math and 0.5 elective credit toward the HS21+ diploma.

INTEGRATED MATH AND SCIENCE CAPSTONE
CAP 043

2 Credits/Units

22 hours of lecture

Prerequisite: A grade of "C" or better in CAP 042, concurrent enrollment in CAP 042 or eligibility to take CAP 046 or higher math.

Supplements the materials in CAP 042 and introduces concepts from biology, chemistry and physics. Students will explore the scientific method through designing, implementing, and presenting a project using scientific inquiry. Successful completion of both CAP 042 and CAP 043 will provide 1 credit for Math and 1 credit for Lab Science toward the HS21+ diploma. Completion of this course without CAP 042 provides a non-lab science credit.

MATH APPLICATIONS
CAP 046

10 Credits/Units

110 hours of lecture

Prerequisite: CASAS Math score of 236 or higher or successful completion of CAP 042.

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 provide 1 credit for Math toward the HS21+ diploma.

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| <p>TRANSITIONAL CAP 049</p> | <p>STUDIES</p> | <p>MATH</p> | <p>SUPPORT 3 Credits/Units</p> | <p>INTEGRATED CAP 077</p> | <p>ENGLISH/CWP</p> | <p>(PP&I) 7 Credits/Units</p> |
| <p>33 hours of lecture Concurrent enrollment in CAP 040, CAP 042 or CAP 046. Prerequisite: Current CASAS Math score. Designed to provide additional instruction and support for student success in CAP Math classes. Reviews important concepts and skills introduced during CAP Math classes.</p> | | | | | | |
| <p>INTEGRATED CAP 061</p> | <p>ENGLISH</p> | <p>AND</p> | <p>HEALTH 7 Credits/Units</p> | | | |
| <p>77 hours of lecture Prerequisite: CASAS Reading score of 200-220. 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.</p> | | | | | | |
| <p>INTEGRATED CAP 064</p> | <p>ENGLISH &</p> | <p>WA STATE</p> | <p>HISTORY/FINE A 7 Credits/Units</p> | | | |
| <p>77 hours of lecture Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061. 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.</p> | | | | | | |
| <p>INTEGRATED CAP 070</p> | <p>ENGLISH AND</p> | <p>US HISTORY &</p> | <p>GOVERNMENT 7 Credits/Units</p> | | | |
| <p>77 hours of lecture Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061. 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.</p> | | | | | | |
| <p>INTEGRATED CAP 074</p> | <p>ENGLISH &</p> | <p>SCIENCE/CWP 7 Credits/Units</p> | | | | |
| <p>77 hours of lecture Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061. 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.</p> | | | | | | |
| <p>TRANSITIONAL STUDIES PREPARATION CAP 078 22 hours of lecture Prerequisite: CASAS Reading score of <200-255. For students who want to prepare for the HS21+ diploma. This course is required in the 1st or 2nd term 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.</p> | | | | | | |
| <p>CAP SPECIAL TOPICS CAP 080 110 hours of lecture Prerequisite: Appropriate placement by ABE, ESL, GED level completion, CASAS testing, or permission of department. 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 term 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.</p> | | | | | | |
| <p>I-BEST SEMINAR CAP 091 55 hours of lecture Prerequisite: Admission into an I-BEST program. 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.</p> | | | | | | |
| <p>HEALTH CAP 093 22 hours of lecture Prerequisite: CASAS Reading score of 221 or above. For students who need to earn health credit for the HS21+ diploma. Students will gain a deeper understanding of a healthy lifestyle. Successful completion of the course will provide health credit toward the HS21+ diploma.</p> | | | | | | |

OCCUPATIONAL

CAP 094

22 hours of lecture

Prerequisite: CASAS Reading score of 221 or above.

For students who need to earn occupational education credit for the HS21+ diploma. Students will gain a deeper understanding of preparing for a job and working successfully with co-workers. Successful completion of the course will provide occupational education credit toward the HS21+ diploma.

EDUCATION

2 Credits/Units

PHYSICAL

CAP 095

22 hours of lecture

Prerequisite: CASAS Reading score of 221 or above.

For students who need to earn physical education credit for the HS21+ diploma. Students will gain a deeper understanding of physical education by creating a personalized self-directed exercise plan. Successful completion of the course will provide physical education credit toward the HS21+ diploma.

EDUCATION

2 Credits/Units

COMMUNICATION STUDIES (CMST)

INTRO TO MASS MEDIA
CMST&102 5 Credits/Units

55 hours of lecture

Survey of the various major communication media, their primary functions and social impact. Explores the ways in which various mass media impact us and how we impact the mass media. Focuses on critical analysis of issues regarding the mass media to help students develop their own personal and informed approach toward the dynamics of mass communication in society and increase their media literacy. [HA, SE]

COOPERATIVE WORK EXPERIENCE
CMST 199 5 Credits/Units

165 hours of conference

Prerequisite: Consent of Instructional Unit.

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. [GE]

INTERPERSONAL COMMUNICATION
CMST&210 5 Credits/Units

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. [HR,OC,SE,HA]

INTERCULTURAL COMMUNICATION
CMST 216 5 Credits/Units

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/Units

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. [OC,HA,SE]

SMALL GROUP COMMUNICATION
CMST&230 5 Credits/Units

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. [HR,OC,SE,SS,HA]

PERSUASION SPEAKING
CMST 240 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in CMST 220.

Introduction to the study of persuasion. Examines persuasion from both a theoretical and application perspective. [HA, SE]

SELECTED TOPICS
CMST 280 5 Credits/Units

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 term class schedule.

[SE]

SPECIAL PROJECTS
CMST 290 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

ORGANIZATIONAL COMMUNICATION
CMST 310 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in CMST 210, CMST 220, or CMST 230.

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]

COMPUTER AIDED DESIGN AND DRAFTING TECHNOLOGY (CADD)

| | | | | |
|---|---------------------|---|-------------------|-------------------|
| CADD | ORIENTATION | ARCHITECTURAL | DRAFTING | 1 |
| CADD 101 | 1 Credit/Unit | CADD 141 | | 4 Credits/Units |
| 22 hours of lab | | 16 hours of lecture / 55 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] | | Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 140 or CADD 140. | | |
| CADD | CAREERS | INTERMEDIATE | AUTOCAD | |
| CADD 102 | 1 Credit/Unit | CADD 142 | 2 Credits/Units | |
| 22 hours of lab | | 11 hours of lecture / 22 hours of lab | | |
| Prerequisite: A grade of "C" or better in CADD 101. | | Prerequisite: A grade of "C" or better in ENGR 140 or CADD 140. | | |
| 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. [GE] | | A continuation of AutoCAD. Topics covered include: review and continued work with blocks, attributes, and xrefs; creating and using dynamic blocks; using annotated text and dimension text; and an introduction to 3D. | | |
| BASIC | SKETCHUP | CIVIL | DRAFTING | 1 |
| CADD 110 | 4 Credits/Units | CADD 143 | | WITH |
| 16 hours of lecture / 55 hours of lab | | 16 hours of lecture / 55 hours of lab | | CIVIL |
| 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] | | Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 140 or CADD 140. | | 3D |
| BASIC | RHINOCEROS | | | 4 Credits/Units |
| CADD 120 | 4 Credits/Units | | | |
| 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 | BASIC | | SOLIDWORKS |
| CADD 130 | 4 Credits/Units | CADD 150 | | 4 Credits/Units |
| 16 hours of lecture / 55 hours of lab | | 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] | | 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] | | |
| BASIC | AUTOCAD | MECHANICAL | DRAFTING | 1 |
| CADD 140 | 4 Credits/Units | CADD 154 | | WITH |
| 16 hours of lecture / 55 hours of lab | | 16 hours of lecture / 55 hours of lab | | SOLIDWORKS |
| 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] | | Prerequisite: A grade of "C" or better in ENGR 113, and either ENGR 150 or CADD 150. | | 4 Credits/Units |
| | | Mechanical drafting using SolidWorks. Focus on detailed control in annotating and producing drawings of parts and assemblies. Includes components in mechanical print reading. [GE] | | |
| | | INTERMEDIATE | SOLIDWORKS | - |
| | | CADD 155 | | TOP |
| | | 16 hours of lecture / 55 hours of lab | | DOWN |
| | | Prerequisite: CADD 150 or ENGR 150. | | DESIGN |
| | | System design using SolidWorks in the context of an assembly. Focus on complex modeling of parts and assemblies. [GE] | | 4 Credits/Units |
| | | INTRODUCTION | TO | CAM |
| | | CADD 160 | | 2 Credits/Units |
| | | 11 hours of lecture / 22 hours of lab | | |
| | | Introduction to CAM software for CNC machine operation. Recommended for anyone comfortable using a PC. [GE] | | |

| | | | | | | |
|--|---------------|------------|--------------------|---|----------------------|----------------------|
| SOLIDWORKS | FOR | THE | TRADES | ARCHITECTURAL | DRAFTING | 2 |
| CADD 161 | | | 3 Credits/Units | CADD 210 | | 3 Credits/Units |
| 11 hours of lecture / 44 hours of lab | | | | | | |
| Prerequisite: Completion of with a grade of "C" or concurrent enrollment in WELD 110 or MACH 241. | | | | | | |
| Intended for machinists, welders, and others involved directly in manufacturing. Provides a core foundation of the use of the SolidWorks CADD application. Focuses on part modeling with an emphasis on evaluation of part models for geometric and other properties. Also includes sheet metal part modeling and file export for subsequent CNC manufacturing. | | | | | | |
| BASIC | REVIT: | | RESIDENTIAL | | | CUSTOMIZATION |
| CADD 170 | | | 4 Credits/Units | | | 3 Credits/Units |
| 16 hours of lecture / 55 hours of lab | | | | | | |
| Basic operations of the current version of Revit, as used in residential architectural design and drafting. Topics include screen features, drawing and editing 3D objects, using sheets and views, file management, and using pre-existing AutoCAD drawing file data. Recommended for anyone comfortable using a PC. [GE] | | | | | | |
| REVIT: | | | COMMERCIAL | | | |
| CADD 171 | | | 4 Credits/Units | | | |
| 16 hours of lecture / 55 hours of lab | | | | | | |
| Prerequisite: A grade of "C" or better in CADD 170. | | | | | | |
| 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. [GE] | | | | | | |
| ADVANCED | | | REVIT | | | |
| CADD 172 | | | 4 Credits/Units | | | |
| 16 hours of lecture / 55 hours of lab | | | | | | |
| Prerequisite: A grade of "C" or better in CADD 171. | | | | | | |
| Continuation of Revit training beyond CADD 170 and CADD 171. Focuses on the following aspects of Revit: family creation, templates, advanced visibility, filters, schematics, and parameters and constraints. | | | | | | |
| COOPERATIVE | WORK | | EXPERIENCE | | | |
| CADD 199 | | | 6 Credits/Units | | | |
| 198 hours of conference | | | | | | |
| Prerequisite: Consent of Instructional Unit and completion of or concurrent enrollment in HDEV 195, 198 or 200 required. | | | | | | |
| Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE] | | | | | | |
| PRESENTATION | | | GRAPHICS | | | |
| CADD 207 | | | 4 Credits/Units | | | |
| 16 hours of lecture / 55 hours of lab | | | | | | |
| Prerequisite: A grade of "C" or better in CADD 141, CADD 143, or CADD 154. | | | | | | |
| 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. [GE] | | | | | | |
| | | | | ARCHITECTURAL | | 2 |
| | | | | CADD 210 | | 3 Credits/Units |
| | | | | 11 hours of lecture / 44 hours of lab | | |
| | | | | Prerequisite: A grade of "C" or better in CADD 141. | | |
| | | | | 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. [GE] | | |
| | | | | AUTOCAD | | CUSTOMIZATION |
| | | | | CADD 214 | | 3 Credits/Units |
| | | | | 11 hours of lecture / 44 hours of lab | | |
| | | | | Prerequisite: A grade of "C" or better in CADD 142. | | |
| | | | | Customizing buttons and toolbars, using AutoLISP to create new AutoCad commands. Introduction to custom dialog boxes. [GE] | | |
| | | | | TECHNICAL | STATICS | & |
| | | | | CADD 215 | | STRENGTHS |
| | | | | 22 hours of lecture / 22 hours of lab | | |
| | | | | Concurrent enrollment in CADD 216. | | |
| | | | | Prerequisite: A grade of "C" or better in MATH 103. | | |
| | | | | 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. [GE] | | |
| | | | | INTEGRATED | COMPUTATIONAL | DESIGN |
| | | | | CADD 216 | | 3 Credits/Units |
| | | | | 11 hours of lecture / 44 hours of lab | | |
| | | | | Prerequisite: A grade of "C" or better in ENGR 150 or CADD 150, and MATH 103. | | |
| | | | | 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 215 [GE] | | |
| | | | | CIVIL | DRAFTING | 2 |
| | | | | CADD 230 | | 3 Credits/Units |
| | | | | 11 hours of lecture / 44 hours of lab | | |
| | | | | Prerequisite: A grade of "C" or better in CADD 143. | | |
| | | | | 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. [GE] | | |
| | | | | MECHANICAL | DRAFTING | 2 |
| | | | | CADD 240 | | 3 Credits/Units |
| | | | | 11 hours of lecture / 44 hours of lab | | |
| | | | | Prerequisite: A grade of "C" or better in CADD 154. | | |
| | | | | 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. [GE] | | |
| | | | | SELECTED | | TOPICS |
| | | | | CADD 280 | | 5 Credits/Units |
| | | | | 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 | | 6 Credits/Units |
| | | | | 66 hours of conference | | |
| | | | | Prerequisite: Consent of Instructional Unit. | | |
| | | | | Opportunity to plan, organize and complete special projects approved by the department. [GE] | | |

CADD

CADD 299

11 hours of lecture / 88 hours of lab

Prerequisite: Consent of Instructional Unit.

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. [GE]

CAPSTONE**PRACTICUM**

5 Credits/Units

COMPUTER GRAPHICS TECHNOLOGY (CGT)

PHOTOSHOP

CGT 101

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

CGT 102

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

CGT 103

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

CGT 104

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

CGT 105

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

CGT 106

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]

RASTER

GRAPHICS

4 Credits/Units

VECTOR

GRAPHICS

4 Credits/Units

PAGE

LAYOUT

4 Credits/Units

MULTIMEDIA

CONTENT

I

4 Credits/Units

EXPERIENCE

DESIGN

4 Credits/Units

MEDIA

EXPLORATION

3 Credits/Units

COOPERATIVE

CGT 199

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

WORK

EXPERIENCE

5 Credits/Units

WEB

CGT 201

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]

VIDEO

PRODUCTION

4 Credits/Units

WEB

CGT 205

22 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in CTEC 122 HTML Fundamentals. 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. [GE]

DESIGN

I

4 Credits/Units

WEB

CGT 206

22 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in CGT 205. 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. [GE]

DESIGN

II

4 Credits/Units

PROFESSIONAL

CGT 214

22 hours of lecture / 44 hours of lab

Prerequisite: Consent of Instructional Unit. 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. [GE]

PRACTICES

4 Credits/Units

CAPSTONE

CGT 240

22 hours of lecture / 44 hours of lab

Prerequisite: Consent of Instructional Unit. 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. [GE]

PRACTICUM

4 Credits/Units

SELECTED

CGT 280

55 hours of lecture

Prerequisite: Consent of Instructional Unit.

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 term class schedules.

[GE]

TOPICS

5 Credits/Units

SPECIAL

CGT 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department.

PROJECTS

3 Credits/Units

COMPUTER SCIENCE & ENGINEERING (CSE)

ENGINEERING AND COMPUTER SCIENCE ORIENTATION CSE 101

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

44 hours of lecture / 33 hours of lab

Prerequisite: A grade of "C" or better in College Trigonometry.

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. [SE]

INTRODUCTION TO C CSE 121

55 hours of lecture

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.

Introduction to the C programming language. Emphasis on program design, verification, and testing. Programming related concepts in computer science will be covered. [SE]

DISCRETE STRUCTURES CSE 215

55 hours of lecture

Prerequisite: A grade of "C" or better in CSE 121 and ENGR 250.

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).

INTRODUCTION TO DATA STRUCTURES CSE 222

55 hours of lecture

Prerequisite: A grade of "C" or better in CSE 121 and CSE 224, or consent of Instructional Unit.

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. [SE]

DATA STRUCTURES & OBJECT-ORIENTED PROGRAMMING CSE 223

55 hours of lecture

Prerequisite: A grade of "C" or better in CSE 215 and CSE 222, or consent of Instructional Unit.

Study of data structures and the analysis of algorithms, object-oriented programming, concurrency, memory management. [SE]

PROGRAMMING

CSE 224

55 hours of lecture

Prerequisite: A grade of "C" or better in CSE 121 or consent of Instructional Unit.

Study of tools and techniques that facilitate programming and debugging, including debuggers, profilers, and scripting. [SE]

SPECIAL

CSE 290

55 hours of conference

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [SE]

TOOLS

5 Credits/Units

PROJECTS

5 Credits/Units

COMPUTER TECHNOLOGY (CTEC)

COMPUTING

CTEC 101

22 hours of lecture

Prerequisite: Eligibility for ENGL 098.

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 em-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

MAC/OS

CTEC 103

3 Credits/Units

33 hours of lecture

Prerequisite: Eligibility for ENGL 098.

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]

IT

CTEC 104

33 hours of lecture

Prerequisite: Eligibility for ENGL 098.

Communication skills for working in a technical environment. Topics covered: professional ethics and behavior, health and safety issues, and developing a service attitude. [GE, HR]

INFORMATION

TECHNOLOGY

FUNDAMENTALS

CTEC 106

5 Credits/Units

55 hours of lecture

Prerequisite: Eligibility for ENGL 098.

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]

POWERSHELL

CTEC 111

33 hours of lecture

Prerequisite: Eligibility for ENGL 098.

Provides skills and experience in the Windows PowerShell command line environment for preparation towards careers in computer and information technology related fields. Topics include command line syntax, file system interactions and managing network systems in PowerShell, scripting, functions and using PowerShell with Active Directory.

PROGRAMMING

CTEC 112

55 hours of lecture

Prerequisite: Eligibility for ENGL 101 or PTWR 135 and a "C" or better in PTCS 110 or a MATH course with a prerequisite of MATH 096 or higher. 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. [GE]

INTERNET

RESEARCH

AND

LIVING

ONLINE

CTEC 115

22 hours of lecture

Prerequisite: Eligibility for ENGL 098.

Introduction to global networking and the Internet with an emphasis on the basic skills for interacting and utilizing the Internet for research. Topics include strategies for locating, analyzing and evaluating information, as well as network fundamentals, Internet origins, social, legal and ethical issues regarding Internet interactions. [GE]

INTRO

TO

PROGRAMMING

&

PROBLEM SOLVING

CTEC 121

5 Credits/Units

55 hours of lecture

Prerequisite: Eligibility for ENGL 101 or PTWR 135 and a grade of "C" or better in PTCS 110 or a MATH course with a prerequisite of MATH 096 or higher.

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. [Q,SE]

HTML

CTEC 122

44 hours of lecture

Prerequisite: Eligibility for ENGL 098.

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

55 hours of lecture

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.

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. [GE]

ESSENTIALS

5 Credits/Units

FUNDAMENTALS

4 Credits/Units

5 Credits/Units

| | | | | | | | | |
|---|-------------------|------------|--|--|-----------------|--------------------|--------------------------------------|------------------------------|
| PHP CTEC 127 55 hours of lecture 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. 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. [GE] | WITH | SQL | I 5 Credits/Units | MICROSOFT CTEC 135 55 hours of lecture Prerequisite: Eligibility for ENGL 098. 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 procedural coding, debugging, testing and documentation. Course is based on the Microsoft Software Development Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. [GE] | SOFTWARE | DEVELOPMENT | WITH | C# 5 Credits/Units |
| MICROSOFT CTEC 130 33 hours of lecture Prerequisite: Eligibility for ENGL 098. 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] | WINDOWS | OS | FUNDAMENTALS 3 Credits/Units | WEB CTEC 145 55 hours of lecture Prerequisite: Eligibility for ENGL 098. 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. [GE] | SERVER | | TECHNOLOGY 5 Credits/Units | |
| MICROSOFT CTEC 131 33 hours of lecture Prerequisite: Eligibility for ENGL 098. 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] | NETWORKING | | FUNDAMENTALS 3 Credits/Units | WORDPRESS CTEC 160 55 hours of lecture Prerequisite: A grade of "C" or better in PTWR 135, ENGL 101 or consent of Instructional Unit. 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. [GE] | | | | I 5 Credits/Units |
| MICROSOFT CTEC 133 33 hours of lecture Prerequisite: Eligibility for ENGL 098. 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. [GE] | SECURITY | | FUNDAMENTALS 3 Credits/Units | BUSINESS CTEC 165 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. Prerequisite: Eligibility for ENGL 098. [GE] | WEB | | PRACTICES 4 Credits/Units | |
| MICROSOFT CTEC 134 55 hours of lecture Prerequisite: Eligibility for ENGL 098. 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 Microsoft Technology Associate (MTA) certification as a component of the course curriculum. Familiarity with Windows and MS Office highly recommended. [GE] | DATABASE | | ADMIN 5 Credits/Units | COOPERATIVE CTEC 199 165 hours of clinical Prerequisite: Consent of Instructional Unit and completion of or concurrent enrollment in HDEV 195, 198 or 200 required. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE] | WORK | | EXPERIENCE 5 Credits/Units | |

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|--|-------------|-------------------|--|--|---------------|------------|---|
| HELP CTEC 200 11 hours of lecture / 66 hours of clinical Prerequisite: A grade of "C" or better in CTEC 104 or consent of Instructional Unit. Technical support work experience for a real world learning environment that supports technology needs for the local community. All areas of customer technology support environments are emphasized including communication, networking, customer tracking, troubleshooting, documentation and customer relations. Activities include help desk service projects and professional development activities. [GE] | DESK | TECHNICIAN | I 3 Credits/Units | PHP CTEC 227 55 hours of lecture Prerequisite: A grade of "C" or better in CTEC 127, or consent of Instructional Unit. 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. [GE] | WITH | SQL | II 5 Credits/Units |
| HELP CTEC 201 11 hours of lecture / 66 hours of clinical Prerequisite: A grade of "C" or better in CTEC 200 or consent of Instructional Unit. Continuation of CTEC 200 Help Desk Technician I. Technical support work experience for a real world learning environment that supports technology needs for the local community with opportunities and experience to serve in project supervisory roles. All areas of customer technology support environments are emphasized including communication, networking, customer tracking, troubleshooting, documentation and customer relations. Activities include help desk service projects, professional development activities, meeting attendance and managing a help desk. [GE] | DESK | TECHNICIAN | II 3 Credits/Units | COMPTIA CTEC 233 55 hours of lecture Prerequisite: Eligibility for ENGL 098, a grade of "C" or better in CTEC 131, or consent of Instructional Unit. Covers the essential principles for network security and risk management. Topics include cloud security, expansion of Virtualization and how to secure it, mobile device security and analysis of metrics obtained from monitoring and tracking tools. Course is based on, and is intended for, students to prepare for the CompTIA Security+ certification. [GE] | | | SECURITY+ 5 Credits/Units |
| INTRODUCTION TO MANAGED INFORMATION SYSTEMS CTEC 205 55 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101. 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 and prior experience with Microsoft Excel spreadsheets and Access databases is highly recommended. [GE] | | | | COMPTIA CTEC 235 55 hours of lecture Prerequisite: Eligibility for ENGL 098, a grade of "C" or better in CTEC 233 or consent of Instructional Unit. Covers critical knowledge and skills that are required to prevent, detect and combat cybersecurity threats. Covers tools such as packet sniffers, intrusion detection systems (IDS) and security information and event management (SIEM) systems. The class is based on the CompTIA Cybersecurity Analyst (CSA+) certification. [GE] | | | CYBERSECURITY 5 Credits/Units |
| COMPTIA CTEC 213 44 hours of lecture Prerequisite: Eligibility for ENGL 098, a grade of "C" or better in CTEC 106 or instructor consent. Covers the skills required to install, configure and troubleshoot PC operating systems and networking software for desktop computers and mobile devices. Course is based on outcomes and objectives related to the CompTIA A+ certifications. [GE] [PNP] | A+ | | FUNDAMENTALS 4 Credits/Units | APPLIED CTEC 265 55 hours of lecture Prerequisite: A grade of "C" or better in CTEC 127 and CTEC 126 or consent of Instructional Unit. The skills and knowledge to interact, use and create Application Programming Interfaces (APIs) and provide integration between programs and services on the web. Content management system programming skills and best practices will also be addressed. [GE] | WEB | | DEVELOPMENT 5 Credits/Units |
| COMPTIA CTEC 214 44 hours of lecture Prerequisite: Eligibility for ENGL 098, a grade "C" or better in CTEC 106 or instructor consent. Covers the skills required to install, configure and troubleshoot PC operating systems and networking software for desktop computers and mobile devices. Course is based on outcomes and objectives related to the CompTIA A+ certification. [GE] [PNP] | A+ | OPERATING | SYSTEMS & NETWORKING 4 Credits/Units | WEB CTEC 293 99 hours of lab Prerequisite: Concurrent enrollment in, or completion of CTEC 265 with a grade of "C" or better. Development of applied web programming skills and a coding portfolio website that will demonstrate a student's proficiency in various aspects of web development. [GE] | SKILLS | | PORTFOLIO 3 Credits/Units |

CUISINE (CUIS)

CULINARY FUNDAMENTALS I

CUIS 110 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in CUIS 111.

Prerequisites: Eligible for ENGL 098 and MATH 030 or MATH 092. Introduction to fundamentals of cooking. Includes history of food service industry, professionalism in the workplace, kitchen safety and sanitation, nutrition, equipment, kitchen math, weights and measures, knife skills, aromatics and flavorings. Theory of cooking methods, stocks and sauces. Valid Washington State food handlers card.

PROFESSIONAL COOKING I

CUIS 111 8 Credits/Units
176 hours of lab
Concurrent enrollment in CUIS 110.

Prerequisites: Eligible for ENGL 098 and MATH 030 or MATH 092. Hands-on preparation of product utilizing those skills introduced in culinary fundamentals I. Emphasizes kitchen safety, knife skills, basic cooking preparations, sanitation, stock preparation, basic meat/protein fabrication. Production for customer service and application of techniques through kitchen station rotation. Valid Washington State food handlers card.

CULINARY FUNDAMENTALS II

CUIS 120 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in CUIS 121.

Prerequisites: A grade of "C" or better in CUIS 110 and CUIS 111 or consent of Instructional Unit. Continuation of Culinary Fundamentals I with greater emphasis on cooking techniques, specific food and flavoring identification, nutrition with healthy cooking techniques, breakfast cookery, salads, cold dressings and sauces. Introduction to regional and international fare. Valid Washington State food handlers card.

PROFESSIONAL COOKING II

CUIS 121 8 Credits/Units
176 hours of lab
Concurrent enrollment in CUIS 120.

Prerequisites: A grade of "C" or better in CUIS 110 and CUIS 111 or consent of Instructional Unit. Hands-on preparation of product utilizing those skills introduced in Culinary Fundamentals I and II through kitchen station rotation. Emphasis on breakfast cookery, healthy cooking, regional and international dishes for customer service. Apply cooking techniques and refine customer service through kiosk service and station rotation. Valid Washington State food handlers card.

CULINARY FUNDAMENTALS III

CUIS 130 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in CUIS 131.

Prerequisites: A grade of "C" or better in CUIS 120 and CUIS 121 or consent of Instructional Unit. Introduction to restaurant-level cooking, menu planning, preparing/producing complete meals, restaurant and dining organization. Focus on recipe conversions, yields, and yield grades, fabrication, plate presentation, inventory and cost controls. Valid Washington State food handlers card.

PROFESSIONAL COOKING III

CUIS 131 8 Credits/Units
176 hours of lab

Concurrent enrollment in CUIS 130.
Prerequisites: A grade of "C" or better in CUIS 120 and CUIS 121 or consent of Instructional Unit. Hands on preparation of product utilizing those skills introduced in culinary fundamentals theory through kitchen station rotation. Emphasis on breakfast cookery, healthy cooking, regional and international dishes for customer service. Apply cooking techniques and refine customer service through kiosk service and station rotation. Valid Washington State food handlers card.

CLASSIC AND MODERN SOUPS AND SAUCES

CUIS 140 2 Credits/Units
11 hours of lecture / 22 hours of lab

Prerequisites: A grade of "C" or better in CUIS 110 and CUIS 111 or consent of Instructional Unit. Hands-on exploration of classic soups and sauces and their advancement into the modern cuisine. Create updated versions to reflect today's culture and healthy lifestyle. Valid Washington State food handlers card.

MEAT CUTTING AND FABRICATION

CUIS 141 3 Credits/Units
11 hours of lecture / 44 hours of lab

Prerequisites: A grade of "C" or better in CUIS 110 and CUIS 111 or consent of Instructional Unit. Identification of carcass and boxed meats and their fabrication into restaurant cuts. Cutting of poultry, beef, hog, lamb, fish and introduction to sausage production. Valid Washington State food handlers card.

WINE, BEER, SPIRITS AND FOOD PAIRINGS

CUIS 142 2 Credits/Units
11 hours of lecture / 22 hours of lab

Prerequisites: A grade of "C" or better in CUIS 110 and CUIS 111 or consent of Instructional Unit. Gain an understanding of how to choose a wine, beer or spirit to compliment a dish. Discuss flavor profiles and how incorporating beverages can elevate the dining experience. Hands on use of beverages in production of a variety of flavorful dishes. Valid Washington State food handlers card.

RESTAURANT BAKING

CUIS 143 2 Credits/Units
11 hours of lecture / 22 hours of lab

Prerequisites: A grade of "C" or better in CUIS 110 and CUIS 111 or consent of Instructional Unit. Introduction of restaurant style baking including yeast breads, biscuits, scones, muffins, cookies, pies, quick breads, plated desserts and sauces. Basic understanding of baking science. Valid Washington State food handlers card.

BANQUET AND BUFFET PLANNING AND EXECUTION

CUIS 144 2 Credits/Units
11 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in CUIS 110 and CUIS 111 or consent of Instructional Unit. Effective planning and execution of banquet and buffet operations including service, buffet settings, menu design, yields, and cooking techniques. Includes hors d'oeuvres production and basic garniture. Valid Washington State food handlers card.

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| <p>WINE CUIS 145 33 hours of lecture A course designed for the student to understand the components necessary to becoming a competent and consistent wine taster and appreciator, a valuable asset for the wine enthusiast.</p> | <p>APPRECIATION 3 Credits/Units</p> | <p>MANAGEMENT CUIS 221 176 hours of lab Concurrent enrollment in CUIS 220. Prerequisite: A grade of "C" or better in CUIS 210 and CUIS 211 or consent of Instructional Unit.</p> | <p>PRACTICES 8 Credits/Units</p> |
| <p>APPLIED CUIS 200 11 hours of lecture / 176 hours of lab Prerequisite: A grade of "C" or better in CUIS 130 and CUIS 131 or consent of Instructional Unit. Apply acquired knowledge providing food service to the campus community through Kiosk cookery. Students will rotate within various cooking stations to hone culinary skills preparation of second year curriculum. Valid Washington State food handlers card.</p> | <p>PROFESSIONAL</p> | <p>DEVELOPMENT 9 Credits/Units</p> | <p>Utilizing acquired skills, supervise workers in food service settings. Manage product ordering, inventory and control for selected menu. Display proper execution of the entire menu including preparation, personnel management, service, menu and sales analysis. Valid Washington State food handlers card.</p> |
| <p>ADVANCED CUIS 210 22 hours of lecture / 66 hours of lab Concurrent enrollment in CUIS 211. Prerequisite: A grade of "C" or better in CUIS 130, CUIS 131, and CUIS 200 or consent of Instructional Unit. Advanced theory with emphasis on international and regional cuisine including terminology, nutrition discussion, menu feasibility and ingredient identification, international cooking methods and adaptations. Advanced plate presentation, garnitures, menu writing and recipe study. Understanding of management skills focusing on team leadership. Introduction to banquet and buffet. Valid Washington State food handlers card.</p> | <p>CULINARY</p> | <p>FUNDAMENTALS 5 Credits/Units</p> | <p>CUISINE CUIS 230 11 hours of lecture / 110 hours of lab Concurrent enrollment in CUIS 231. Prerequisite: A grade of "C" or better in CUIS 220 and CUIS 221 or consent of Instructional Unit. In conjunction with the management of assigned kitchen stations, students in their final quarter shall plan and execute one or more restaurant dinner service, and/or banquet service to include menu planning, inventory and requisition, kitchen management and function execution. Valid Washington State food handlers card.</p> |
| <p>ADVANCED CUIS 211 176 hours of lab Concurrent enrollment in CUIS 210. Prerequisite: A grade of "C" or better in CUIS 130, CUIS 131 and CUIS 200 or consent of Instructional Unit. Utilizing skills and knowledge gained, focusing on international and regional cuisine, prepare meals for campus service. Build management skills by supervision of students in skills and teamwork to achieve food service goals through rotation within the food service areas and/or banquet and buffet settings applying appropriate customer relations. Valid Washington State food handlers card.</p> | <p>CULINARY</p> | <p>PRACTICES 8 Credits/Units</p> | <p>INDUSTRY CUIS 231 132 hours of clinical Concurrent enrollment in CUIS 230. Prerequisite: A grade of "C" or better in CUIS 220 and CUIS 221 or consent of Instructional Unit. Supervised on-the-job work experience at an approved industry location in the local community with specific learning objectives and employer evaluation. Students will apply and hone their culinary skills, as well as, further develop employment skills within industry. Valid Washington State food handlers card.</p> |
| <p>MANAGEMENT CUIS 220 22 hours of lecture / 66 hours of lab Concurrent enrollment in CUIS 221. Prerequisite: A grade of "C" or better in CUIS 210 and CUIS 211 or consent of Instructional Unit. Explores the expectations of a kitchen manager through numerous aspects of the position including leadership, safety and sanitation, training, production and service, menu and sales analysis and cost control. Banquet and catering practices. Identify and arrange internship with a local food service vendor. Plan activities in preparation of final quarter capstone project. Valid Washington State food handlers card.</p> | <p>AND</p> | <p>BANQUET</p> | <p>THEORY 5 Credits/Units</p> |

DENTAL HYGIENE (DH)

PHARMACOLOGY

DH 282 1 Credit/Unit
11 hours of lecture

Prerequisite: Consent of Dental Hygiene Program.

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. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES I
DH 283 6 Credits/Units

33 hours of lecture / 66 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

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. [GE]

ORAL MEDICINE
DH 284 2 Credits/Units

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/Units

22 hours of lecture / 66 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/Units

33 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

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. [GE]

SPECIAL PROJECTS
DH 290 15 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE] [PNP]

INTRODUCTION TO DIGITAL MANAGEMENT SYSTEMS
DH 292 1 Credit/Unit

22 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

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. [GE]

INTRODUCTION TO DENTAL MATERIALS/ASSISTING
DH 301 3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Introduction to properties and manipulation of basic restorative materials including resin, bases, liners, varnishes, cements, and sealants. Introduction to four-handed chairside assisting, study model preparation, and pit and fissure sealant application. Clinical practice through assisting in restorative situations. [GE]

HEAD AND NECK ANATOMY
DH 303 3 Credits/Units

33 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

Embryological, histological, and anatomical development of the head and neck as it applies to the practice of dental hygiene. [GE]

EDUCATIONAL THEORY AND APPLICATION
DH 304 2 Credits/Units

22 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

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. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES II
DH 313 6 Credits/Units

17 hours of lecture / 99 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Emphasis on the principles of instrumentation and patient management. Clinical practice in oral prophylaxis, preventive procedures, and patient management at the introductory level. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES III
DH 314 6 Credits/Units

17 hours of lecture / 99 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

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. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES IV
DH 321 4 Credits/Units

97 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

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. [GE]

ORAL RADIOLOGY I
DH 323 3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Radiographic theory, equipment, patient safety, and techniques for exposing, processing, and mounting dental radiographs. [GE]

ORAL RADIOLOGY II
DH 324 1 Credit/Unit

22 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Second in a series on radiographic theory application and radiographic image interpretation. Continued experience in exposing, processing and mounting, and critiquing dental radiographs. [GE]

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| ORAL | RADIOLOGY | III | PHARMACOLOGY | III |
| DH 331 | | 2 Credits/Units | DH 384 | 1 Credit/Unit |
| 22 hours of lecture | | | 11 hours of lecture | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| 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. [GE] | | | 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. [GE] | |
| GENERAL | AND | ORAL | PATHOLOGY | |
| DH 344 | | | 3 Credits/Units | |
| 33 hours of lecture | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| Fundamentals of oral pathology including the inflammatory processes, tumor development, metabolic pathways and developmental disturbances. [GE] | | | 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. [GE] | |
| ETHICS | AND | THE | PROFESSION | |
| DH 353 | | | 1 Credit/Unit | |
| 11 hours of lecture | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| 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. [GE] | | | 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. [GE] | |
| LOCAL | ANESTHESIA | & | PAIN | CONTROL |
| DH 364 | | | | 4 Credits/Units |
| 25 hours of lecture / 33 hours of lab | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| 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. [GE] | | | 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. [GE] | |
| CARIOLOGY | | | | |
| DH 373 | | | 2 Credits/Units | |
| 22 hours of lecture | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Hygiene Program. | |
| Presentation of cause, progression, and prevention of dental caries with an emphasis on fluoride and other remineralization strategies. [GE] | | | 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. [GE] | |
| PHARMACOLOGY | | | II | |
| DH 383 | | | 1 Credit/Unit | |
| 11 hours of lecture | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| 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. [GE] | | | Introduction to development level of advanced instrumentation and patient treatment techniques. [GE] | |
| CLINICAL | DENTAL | HYGIENE | TECHNIQUES | V |
| DH 412 | | | | 9 Credits/Units |
| 198 hours of lab | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| Developmental level of advanced instrumentation and patient treatment techniques. [GE] | | | Developmental level of advanced instrumentation and patient treatment techniques. [GE] | |
| CLINICAL | DENTAL | HYGIENE | TECHNIQUES | VI |
| DH 413 | | | | 9 Credits/Units |
| 198 hours of lab | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| Developmental level of advanced instrumentation and patient treatment techniques. [GE] | | | Developmental level of advanced instrumentation and patient treatment techniques. [GE] | |
| CLINICAL | DENTAL | HYGIENE | TECHNIQUES | VII |
| DH 414 | | | | 9 Credits/Units |
| 198 hours of lab | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | |
| 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] | | | Consent of the Dental Hygiene Program [GE] | |

| | | | | | |
|---|------------------|--------------------|---|--------------|-----------------|
| RESTORATIVE | DENTISTRY | I | NITROUS | OXIDE | SEDATION |
| DH 431 | | 2 Credits/Units | DH 471 | | 1 Credit/Unit |
| 11 hours of lecture / 22 hours of lab | | | 8 hours of lecture / 4 hours of lab | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | | |
| Introduction to restorative techniques with emphasis on placement of amalgam and clinical experience with sealant application. [GE] | | | 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. | | |
| RESTORATIVE | DENTISTRY | II | PERIODONTICS | | II |
| DH 432 | | 5 Credits/Units | DH 472 | | 2 Credits/Units |
| 22 hours of lecture / 66 hours of lab | | | 22 hours of lecture | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | | |
| Laboratory practice in expanded duties as allowed by Washington State law. Emphasis on placement of amalgam and composite restorations. [GE] | | | 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. [GE] | | |
| RESTORATIVE | DENTISTRY | III | PERIODONTICS | | III |
| DH 433 | | 4 Credits/Units | DH 473 | | 2 Credits/Units |
| 11 hours of lecture / 66 hours of lab | | | 22 hours of lecture | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | | |
| 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. [GE] | | | Evidence-based periodontal disease treatment modalities including non-surgical procedures, modulation of the host response, antimicrobials, lasers, and reevaluation and maintenance procedures. [GE] | | |
| RESTORATIVE | DENTISTRY | IV | CAPSTONE | | |
| DH 434 | | 3 Credits/Units | DH 484 | | 3 Credits/Units |
| 11 hours of lecture / 44 hours of lab | | | 33 hours of lecture | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | Prerequisite: Consent of the Dental Hygiene Program. | | |
| 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. [GE] | | | 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. [GE] | | |
| SPECIAL | NEEDS | POPULATIONS | I | | |
| DH 451 | | | | | 1 Credit/Unit |
| 11 hours of lecture | | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | | | |
| 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. [GE] | | | | | |
| SPECIAL | NEEDS | POPULATIONS | II | | |
| DH 452 | | | | | 1 Credit/Unit |
| 11 hours of lecture | | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | | | |
| 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. [GE] | | | | | |
| SPECIAL | NEEDS | POPULATIONS | III | | |
| DH 453 | | | | | 1 Credit/Unit |
| 11 hours of lecture | | | | | |
| Prerequisite: Consent of the Dental Hygiene Program. | | | | | |
| 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. [GE] | | | | | |

DIESEL TECHNOLOGY (DIES)

CUMMINS

DIES 096

33 hours of lecture

Specialized training in Cummins engine theory, troubleshooting, tune-up, maintenance, repair, and safety.

ENGINES

3 Credits/Units

DIESEL

DIES 111

55 hours of lecture

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Introduction to diesel engine construction and principles of operation. Basics of physics and engineering as related to operation of diesel engines. Basic shop tools and safety. [GE]

FUNDAMENTALS

5 Credits/Units

DIESEL

DIES 112

55 hours of lecture / 110 hours of lab

Concurrent enrollment in DIES 111 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Disassembly, inspection, assembly, and adjustment of various diesel engines used in highway and off-highway vehicles. [GE] [PNP]

PROCEDURES

10 Credits/Units

DIESEL

ENGINES/FUEL

SYSTEMS

DIES 113

55 hours of lecture

Concurrent enrollment in DIES 114 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 111 and 112. Repair, adjustment and testing procedures for diesel engines, components and systems. Introduction to fuel systems used and electronic controls used on modern diesel engines. [GE]

5 Credits/Units

DIESEL

DIES 114

55 hours of lecture / 110 hours of lab

Concurrent enrollment in DIES 113 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 111 and 112. Test, adjust, and diagnostics of engines and maintenance practices. [GE] [PNP]

PROCEDURES

10 Credits/Units

DRIVE

DIES 115

55 hours of lecture

Concurrent enrollment in DIES 116 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 113 and 114. Principles of operation and basic construction of drive train components used in on- and off-highway equipment. [GE]

TRAINS

5 Credits/Units

DIESEL

DIES 116

55 hours of lecture / 110 hours of lab

Concurrent enrollment in DIES 115 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 113 and 114. Disassembly, inspection, assembly, and adjustments of drive train components. [GE] [PNP]

PROCEDURES

10 Credits/Units

BASIC

DIES 120

22 hours of lecture / 22 hours of lab

Concurrent enrollment in DIES 112.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092.

Introduction to basic electrical fundamentals needed by technicians to diagnose and repair vehicle electrical systems. [GE]

ELECTRICAL

3 Credits/Units

ELECTRONIC

ENGINE

MANAGEMENT

SYSTEMS

DIES 121

22 hours of lecture / 22 hours of lab

Concurrent enrollment in DIES 114.

Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a "C" or better in DIES 120.

Introduction to electronic engine management systems and emission technology. [GE]

3 Credits/Units

ELECTRONIC

VEHICLE

CONTROL

SYSTEMS

DIES 122

22 hours of lecture / 22 hours of lab

Concurrent enrollment in DIES 116.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 121.

Introduction to electronic controls used in diesel and heavy equipment. [GE]

3 Credits/Units

INDUSTRIAL

DIES 135

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]

HYDRAULICS

3 Credits/Units

ELECTRICAL/ELECTRONIC

DIES 221

55 hours of lecture

Concurrent enrollment in DIES 222 recommended.

Charging, starting, lighting, and control circuits and components used on heavy equipment and highway trucks. **Prerequisite:** Eligibility for ENGL 098 and MATH 030 or MATH 092 [GE]

SYSTEMS

5 Credits/Units

DIESEL

DIES 222

33 hours of lecture / 66 hours of lab

Concurrent enrollment in DIES 221 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092.

Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE] [PNP]

PROCEDURES

6 Credits/Units

HYDRAULIC

DIES 223

55 hours of lecture

Concurrent enrollment in DIES 224 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 221 and 222.

Theory and principles of operation of mobile hydraulic systems. [GE]

SYSTEMS

5 Credits/Units

DIESEL

DIES 224

55 hours of lecture / 110 hours of lab

Concurrent enrollment in DIES 223 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 221 and 222.

Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE] [PNP]

PROCEDURES

10 Credits/Units

BRAKES, STEERING, AND SUSPENSION
 DIES 225 5 Credits/Units

55 hours of lecture

Concurrent enrollment in DIES 226 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 223 and 224.

Hydraulic and air brake systems, steering and suspension used on highway trucks, and heavy equipment. [GE]

DIESEL PROCEDURES
 DIES 226 10 Credits/Units

55 hours of lecture / 110 hours of lab

Concurrent enrollment in DIES 225 recommended.

Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a "C" or better in DIES 223 and 224.

Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE] [PNP]

SELECTED TOPICS
 DIES 280 5 Credits/Units

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 term class schedule. [GE] [PNP]

SPECIAL PROJECTS
 DIES 290 5 Credits/Units

Prerequisite: Consent of Instructional Unit required.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

DRAMA (DRMA)

INTRO TO THEATRE
DRMA&101 3 Credits/Units

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/Units

33 hours of lecture / 22 hours of lab
Techniques and principles of acting. [HB, SE]

ACTING II - THEATRE
DRMA 141 4 Credits/Units

33 hours of lecture / 22 hours of lab
Prerequisite: DRMA 140 (or THEA 140).
Continuation of DRMA 140. Emphasis on scene study, characterization, and period styles of acting. [HB, SE]

ACTING III - TELEVISION
DRMA 142 3 Credits/Units

22 hours of lecture / 22 hours of lab
Prerequisite: A grade of "C" or better in DRMA 140 (or THEA 140).
Techniques for television and film performance. Basic production realities relevant to actors. Students will perform before the cameras and, when possible, work behind them. [HB, SE]

BASIC STAGECRAFT
DRMA 150 4 Credits/Units

22 hours of lecture / 22 hours of lab / 110 hours of conference
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/Units

33 hours of lecture
Design and application of stage make-up. Formerly THEA 152. [HB, SE]

INTRODUCTION TO CINEMA
DRMA 154 5 Credits/Units

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]

COOPERATIVE WORK EXPERIENCE
DRMA 199 5 Credits/Units

165 hours of clinical
Prerequisite: Consent of Instructional Unit.
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. [GE]

STAGE LIGHTING DESIGN
DRMA 250 3 Credits/Units

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]

SELECTED TOPICS
DRMA 280 3 Credits/Units

33 hours of lecture
Varying topics in theatre, as listed in the term class schedule. May be repeated for credit. [SE]

SPECIAL
DRMA 290

55 hours of lecture

Prerequisite: Consent of Instructional Unit.

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. [GE]

PROJECTS
5 Credits/Units

EARLY CHILDHOOD EDUCATION (ECE)

CHILD DEVELOPMENT: BIRTH TO SIX ECE 100

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

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

22 hours of lecture

Prerequisite: EDUC 203 (or ECE 104).

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. [GE]

INDIVIDUALIZED INSTRUCTION II ECE 106

11 hours of lecture / 22 hours of lab

Prerequisite: ECE 105.

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. [GE]

EARLY CHILDHOOD EDUCATION WORKSHOPS ECE 111

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

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]

REFLECTIVE PRACTICES IN EARLY LEARNING ECE 133

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]

PARTNERSHIPS WITH FAMILIES IN EARLY CARE & E ECE 135

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]

COOPERATIVE WORK EXPERIENCE ECE 199

99 hours of clinical

Prerequisite: ECE 121, 209 and 210, and consent of Instructional Unit. 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. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN II ECE 211

33 hours of lecture

Concurrent enrollment in ECE 212 required.

Prerequisite: ECED 160, or consent of Instructional Unit.

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. [GE]

LEARNING EXP FOR YOUNG CHILDREN II LAB ECE 212

66 hours of lab

Concurrent enrollment in ECE 211 required.

Prerequisite: ECE 210, or consent of Instructional Unit.

Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 211. [GE]

LEARNING EXPERIENCES FOR YOUNG CHILDREN III ECE 213

33 hours of lecture

Concurrent enrollment in ECE 214 required.

Prerequisite: ECE 211, or consent of Instructional Unit.

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. [GE]

LEARNING EXP FOR YOUNG CHILDREN III LAB
ECE 214 3 Credits/Units

66 hours of lab

Concurrent enrollment in ECE 213 required.

Prerequisite: ECE 212, or consent of Instructional Unit.

Lab experiences in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 213.

[GE]

EARLY CHILDHOOD SEMINAR
ECE 215 2 Credits/Units

22 hours of lecture

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.

Seminar on professionalism, ethics and issues in teaching and administration. [GE]

SELECTED TOPICS
ECE 280 3 Credits/Units

33 hours of lecture

Selected topics in Early Childhood Education as listed in the term class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS
ECE 290 3 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

EARLY CHILDHOOD EDUCATION (ECED)

INTRO **EARLY** **CHILD** **ED**
ECED&105 5 Credits/Units

55 hours of lecture

Concurrent enrollment in ECED& 120.

Prerequisite: Students must be cleared through the Washington State Department of Early Learning to volunteer with young children.

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.

Students must show evidence of a current TB test. [SE]

HEALTH/NUTRITION/SAFETY

ECED&107 5 Credits/Units

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]

PRACTICUM-NURTURING

ECED&120 2 Credits/Units

11 hours of lecture / 22 hours of lab

Concurrent enrollment in ECED& 105.

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. [SE]

INFANTS/TODDLERS

ECED&132 3 Credits/Units

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]

FAMILY

CHILD

CARE

ECED&134 3 Credits/Units

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]

ADMIN

EARLY

LRNG

PROG

ECED&139 3 Credits/Units

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

ECED&160

55 hours of lecture

Prerequisite: ECED 105, ECED 120, EDUC 130, ECE 133 and ECED 190.

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. [GE]

ENVIRONMENTS-YOUNG

ECED&170

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

ECED&180

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

33 hours of lecture

Practice collecting and presenting observation data of children, teaching practices and learning centers in an early childhood setting. [GE]

DEVELOPMENT

5 Credits/Units

CHILD

3 Credits/Units

DEVELOP

3 Credits/Units

3 Credits/Units

ECONOMICS (ECON)

INTRODUCTION TO ECONOMICS ECON 101 3 Credits/Units

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/Units

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/Units

33 hours of lecture

Prerequisite: A grade of "C" or better in ECON 101.

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. [SE, SS]

MICRO ECONOMICS ECON&201 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in either ECON 101 or MATH 095 or MATH 096 or consent of Instructional Unit.

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. [SE,SS]

MACRO ECONOMICS ECON&202 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in either ECON 101 or MATH 095 or MATH 096 or consent of Instructional Unit.

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. [SE,SS]

SELECTED TOPICS ECON 280 5 Credits/Units

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 ECON 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

PROJECTS 5 Credits/Units

MANAGERIAL AND GLOBAL ECONOMICS ECON 405 5 Credits/Units

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 (EDUC)

CHILD **DEVELOPMENT**
EDUC&115 5 Credits/Units

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/Units

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/Units

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/Units

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 5 Credits/Units

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

INTRODUCTION **TO** **EDUCATION**
EDUC&201 3 Credits/Units

33 hours of lecture

Concurrent enrollment in EDUC 210 required.

Overview of education as a discipline, a philosophy, and a profession. Recommended for future teachers and paraeducators. [SE]

EXCEPTIONAL **CHILD**
EDUC&203 3 Credits/Units

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/Units

11 hours of lecture / 44 hours of lab

Concurrent enrollment in EDUC& 201 required.

Orientation to teaching and life in the American system of schooling. Supervised volunteer field experience with a weekly, one-hour seminar. [GE]

ENGINEERING (ENGR)

ENGINEERING AND COMPUTER SCIENCE ORIENTATION ENGR 101

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

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

11 hours of lecture / 22 hours of lab / 2 hours of conference

Prerequisite: A grade of "C" or better in College Trigonometry, and a grade of "C" or better in or concurrent enrollment in, College Algebra.

For students interested in pursuing a degree in aerospace engineering. Topics include history of aviation and spaceflight, careers in aerospace, foundations of physical principles that underlies aerodynamics, dynamic pressure, the standard atmosphere, and lift and drag coefficients. The course includes a team design project. [SE]

INTRODUCTION TO ENGINEERING ENGR 109

55 hours of lecture

Prerequisite: MATH 103 or equivalent, and completion of, or concurrent enrollment in MATH 111 or equivalent.

Introduction to the engineering profession: its branches, principles, and practices. Engineering problem-solving, methods of analysis and design, and an introduction to engineering fundamentals. [SE]

ENGINEERING SKETCHING AND VISUALIZATION ENGR 113

11 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in MATH 095 or MATH 096 or equivalent placement score.

Engineering communication and graphics through freehand sketching. Visualization and development of orthographic theory, scales, and lettering. [SE]

GEOMETRIC DIMENSIONING AND TOLERANCING ENGR 115

11 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in ENGR 113 and either ENGR 140 or ENGR 150.

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. [SE]

INTRO TO ELECTRICAL/COMPUTER SCI & ENGINEERING ENGR 120

44 hours of lecture / 33 hours of lab

Prerequisite: A grade of "C" or better in College Trigonometry, and a grade of "C" or better in or concurrent enrollment in College Algebra.

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. [SE]

FIELD SURVEY I ENGR 121

33 hours of lecture / 44 hours of lab

Concurrent enrollment in ENGR 121 lab required.

Prerequisite: A grade of "C" or better in MATH 151 (or MATH 113).

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. [SE]

BASIC AUTOCAD ENGR 140

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

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

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

ELECTRICAL CIRCUITS ENGR&204

44 hours of lecture / 33 hours of lab

Prerequisite: MATH 152 (or MATH 211).

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. [SE]

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|--|----------------------|-----------------------------------|--|-------------------------------------|
| FUNDAMENTALS ENGR 208 22 hours of lecture / 22 hours of lab Prerequisite: Concurrent enrollment in or completion of ENGR 107, ENGR 150, and MATH 151 with a grade of "C" or better in all courses. Introduction to the fundamentals of the flight of air and space craft. Topics include review of basic fluid flow and aerodynamics, circulation theory of lift, finite wings, aerodynamic performance, stability and control, propulsion, and space flight. The course includes a team design project. [GE, SE] | OF | FLIGHT 3 Credits/Units | THERMODYNAMICS ENGR&224 55 hours of lecture Prerequisite: A grade of "C" or better in MATH 152 and PHYS 241. 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. [SE] | 5 Credits/Units |
| INTRODUCTION ENGR 209 22 hours of lecture / 22 hours of lab Prerequisite: Completion of with a grade of "C" or concurrent enrollment in ENGR 207, and MATH 152. Introduction to compressible flow as applied to aerodynamics of aerospace systems. Topics include review of foundational principles, control volume analysis, compressible flow, normal and oblique shocks, Prandtl-Meyer flow, and overview of Fanno and Reyleigh flow. The course includes a team design project. | TO | GAS | DYNAMICS ENGR&225 55 hours of lecture Prerequisite: ENGR 211 or ENGR 214, and MATH 211 or MATH 152. Concepts of stress and strain for deformable objects. Axial, torsional and bending loading, combined loadings. Column loading and stability with other applied topics. [SE] | MATERIALS 5 Credits/Units |
| STATICS ENGR&214 55 hours of lecture Prerequisite: MATH 152 (or MATH 211). 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. [SE] | | | MANUFACTURING ENGR 239 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] | PROCESSES 5 Credits/Units |
| DYNAMICS ENGR&215 55 hours of lecture Prerequisite: ENGR 214 and MATH 152 (or ENGR 211 and MATH 211). 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. [SE] | | | APPLIED NUMERICAL METHODS FOR ENGINEERS ENGR 240 33 hours of lecture / 33 hours of lab Prerequisites: A grade of "C" or better in MATH 153, ENGR 109, or ENGR 120, or consent of Instructional Unit. 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. | 4 Credits/Units |
| INTEGRATED ENGR 216 11 hours of lecture / 44 hours of lab Prerequisite: Completion of or concurrent enrollment in ENGR 150, and ENGR 214. 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. | COMPUTATIONAL | DESIGN 3 Credits/Units | DIGITAL LOGIC ENGR 250 44 hours of lecture / 33 hours of lab Prerequisite: A grade of "C" or better in ENGR 120 (or CSE 120). 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. [SE] | DESIGN 5 Credits/Units |
| MATERIALS ENGR 221 55 hours of lecture Prerequisite: CHEM 142 (or CHEM 132). Basic structure and properties of materials. Phase equilibrium and transformations. Mechanical properties, electronic structure, thermal, electrical, and magnetic properties. [SE] | | SCIENCE 5 Credits/Units | ELECTRICAL CIRCUITS AND SIGNALS ENGR 252 44 hours of lecture / 33 hours of lab Prerequisite: ENGR 204 (or ENGR 251). 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. [SE] | 5 Credits/Units |

SIGNALS AND SYSTEMS
ENGR 253 5 Credits/Units

44 hours of lecture / 33 hours of lab

Prerequisite: ENGR 252.

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. [SE]

DIGITAL SYSTEMS AND MICROPROCESSORS
ENGR 270 5 Credits/Units

44 hours of lecture / 33 hours of lab

Prerequisite: A grade of "C" or better in ENGR 250 and CSE 121, or consent of Instructional Unit.

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. [SE]

SELECTED TOPICS
ENGR 280 5 Credits/Units

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 6 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

ENGLISH (ENGL)

WRITING

ENGL 097
55 hours of lecture

Prerequisite: Recommending score on college writing skills placement test.

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. [CA]

FUNDAMENTALS

5 Credits/Units

WRITING

ENGL 098
55 hours of lecture

Prerequisite: A grade of "C" or better in ENGL 097, or recommending score on the College writing skills placement test for ENGL 098.

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. [CA]

FUNDAMENTALS

5 Credits/Units

ENGLISH

ENGL&101
55 hours of lecture

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.

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. [CA,SE,CT,WC]

COMPOSITION

5 Credits/Units

ENGLISH

ENGL&102
55 hours of lecture

Prerequisite: A grade of "C" or better in ENGL 101.
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. [CA,CT,WC,SE]

COMPOSITION

5 Credits/Units

ADVANCED

ENGL 103
33 hours of lecture

Prerequisite: ENGL 102 (or ENGL 102).
Emphasis on composing essays on complex ideas of cultural importance. Assignments based on reading and research in art, science, philosophy, and politics. [CA,SE]

ENGLISH

COMPOSITION

3 Credits/Units

ENGLISH

ENGL 105
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]

GRAMMAR

5 Credits/Units

WRITING

ENGL 108
33 hours of lecture

Prerequisite: A grade of "C" or better in ENGL 101.
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. [CA,WC,SE]

ABOUT

FILM

3 Credits/Units

COMPOSITION

ENGL 110
55 hours of lecture

Prerequisite: ENGL 101 (ENGL 101).
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. [WC,SE]

FOR

LITERATURE

5 Credits/Units

ETHICS

AND

POLICY

IN

HEALTHCARE

I

ENGL 112
22 hours of lecture

Concurrent enrollment in NURS 110, NURS 111, NURS 113, NURS 114, and NURS 115.

Prerequisite: Consent of the Nursing Department.
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. [HA]

2 Credits/Units

INTRODUCTION

TO

CREATIVE

WRITING

ENGL 121
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]

3 Credits/Units

FICTION

ENGL 125
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]

WRITING

3 Credits/Units

POETRY

ENGL 126
33 hours of lecture

Class discussion of student work, development of tools for self-criticism, and strategies for getting poetry published. [HB, SE]

WRITING

3 Credits/Units

CREATIVE

NONFICTION

WRITING

ENGL 127
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]

3 Credits/Units

| | | | | | | |
|--|----------------|--|---|------------|--------------|--------------------------------------|
| INTRODUCTION ENGL 131 33 hours of lecture Study of poetry, poetic forms, and the language and principles of literary analysis. [HA, SE] [PNP] | TO | POETRY 3 Credits/Units | WRITING ENGL 160 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101. 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. [PNP] | FOR | THE | WEB 3 Credits/Units |
| INTRODUCTION ENGL 132 33 hours of lecture Study of drama as both literature and theater, from historical, philosophical and artistic perspectives. [HA, SE] | TO | DRAMATIC LITERATURE 3 Credits/Units | POPULAR ENGL 173 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 sub-groups that thrive in America. [HA] | | | CULTURE 3 Credits/Units |
| INTRODUCTION ENGL 133 33 hours of lecture Study of short fiction, including classic and contemporary examples. Introduction to the language and principles of literary analysis. [HA, SE] [PNP] | TO | SHORT FICTION 3 Credits/Units | INTRODUCTION ENGL 175 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] | TO | LGBTQ | STUDIES 5 Credits/Units |
| INTRODUCTION ENGL 136 33 hours of lecture Introduction to Native American literature as a lens for the experience, culture, and history of Native people within larger American historical contexts. By integrating active learning strategies, coursework focuses on the multicultural nature of Native American literature and on the strategies with which Native writers mediate imbalances of power and systems of oppression within the Americas. Eligibility for ENGL 101 recommended. [GE, HA] | TO | NATIVE AMERICAN LITERATURE 3 Credits/Units | NATURE ENGL 176 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] | AND | THE | HUMANITIES 4 Credits/Units |
| WOMEN ENGL 140 33 hours of lecture Study of fiction, nonfiction, poetry, and drama written by women reflecting the female experience. [HA, SE] | IN | LITERATURE 3 Credits/Units | COOPERATIVE ENGL 199 165 hours of clinical Prerequisite: Consent of Instructional Unit. 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. [GE] | | | WORK 5 Credits/Units |
| SCIENCE ENGL 143 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] | FICTION | AND | FANTASY 3 Credits/Units | | | EXPERIENCE |
| DETECTIVE ENGL 145 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] | | | FICTION 3 Credits/Units | | | |
| INTRODUCTION ENGL 150 33 hours of lecture Study of significant world myths, including their sources and literary expressions. [HA, SE] | TO | MYTHOLOGY 3 Credits/Units | TECHNICAL ENGL&235 55 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or PTWR 135/ENGL 135. 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. [CA,CT,SE,WC] [PNP] | | | WRITING 5 Credits/Units |
| INTRODUCTION ENGL 156 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] | TO | THE NOVEL 3 Credits/Units | | | | |

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|---|--------------------------------------|--|--------------------------------------|
| INTRODUCTION TO QUEER LITERATURE ENGL 254 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. 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. [HA, SE] [PNP] | LITERATURE 3 Credits/Units | AMERICAN MULTIETHNIC LIT ENGL 267 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. 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] | LITERATURE 3 Credits/Units |
| WORLD ENGL 260 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101. Masterpieces of the Ancient World through the fourteenth century. Literature is read within its historical and cultural setting. [HA, SE] | LITERATURE 3 Credits/Units | AMERICAN LITERATURE ENGL 268 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Survey of American writing from the colonial period to the Civil War. Literature is read within its historical and cultural setting. [HA, SE] | LITERATURE 3 Credits/Units |
| WORLD ENGL 261 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Masterpieces from the fifteenth century through the eighteenth century. Literature is read within its historical and cultural settings. [HA, SE] | LITERATURE 3 Credits/Units | AMERICAN LITERATURE ENGL 269 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Survey of American writing from the Civil War through World War I. Literature is read within its historical and cultural setting. [HA, SE] | LITERATURE 3 Credits/Units |
| WORLD ENGL 262 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Masterpieces of world literature from the nineteenth century through the contemporary period. Literature is read within its historical and cultural settings. [HA, SE] | LITERATURE 3 Credits/Units | AMERICAN LITERATURE ENGL 270 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Survey of American writing from World War I to the present. Literature is read within its historical and cultural setting. [HA, SE] | LITERATURE 3 Credits/Units |
| BRITISH ENGL 264 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Classics of British literature from the eighth to the seventeenth century. Literature is read within its historical and cultural settings. [HA, SE] | LITERATURE 3 Credits/Units | PACIFIC NORTHWEST LITERATURE ENGL 271 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. 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. [HA, SE] | LITERATURE 3 Credits/Units |
| BRITISH ENGL 265 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Classics of British literature from the seventeenth to the nineteenth century. Literature is read within its historical and cultural setting. [HA, SE] | LITERATURE 3 Credits/Units | INTRODUCTION TO SHAKESPEARE ENGL 272 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Readings of selected tragedy, comedy and historical plays of Shakespeare. [HA, SE] | LITERATURE 3 Credits/Units |
| BRITISH ENGL 266 33 hours of lecture Prerequisite: A grade of "C" or better in ENGL 101 or eligibility for ENGL 102. Classics of British literature from the nineteenth century to the present. Literature is read within its historical and cultural settings. [HA, SE] | LITERATURE 3 Credits/Units | | |

ETHICS AND POLICY IN HEALTHCARE II

ENGL 273 3 Credits/Units

33 hours of lecture

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.

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.

ADVANCED FICTION WRITING

ENGL 275 3 Credits/Units

33 hours of lecture

Prerequisite: A grade of "C" or better in ENGL 121, 125, or 127 or consent of Instructional Unit.

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. [HB, SE]

ADVANCED POETRY WRITING

ENGL 276 3 Credits/Units

33 hours of lecture

Prerequisite: A grade of "C" or better in on of the following: ENGL 121 or 126.

Continuation of ENGL 126. Further development of the principles of writing and marketing poetry. [HB, SE]

INTRODUCTION TO LITERARY PUBLICATION

ENGL 277 3 Credits/Units

33 hours of lecture

Prerequisite: Eligibility for ENGL 101.

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. [HB] [PNP]

SELECTED TOPICS

ENGL 280 3 Credits/Units

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 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

ENGLISH AS A SECOND LANGUAGE (ESL)

ESL SPECIAL TOPICS
 ESL 005 10 Credits/Units

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 term class schedule.

INTENSIVE FOUNDATIONS:PROBLEM-SOLVING/TECHNOLOGY
 ESL 007 7 Credits/Units

77 hours of lecture
 Concurrent enrollment in ESL 009 ESL Foundations: Spoken/Written Communication.
Prerequisite: Current CASAS scores in listening from below 162 to 199. 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.

INTENSIVE FOUNDATIONS: COMMUNICATION
 ESL 009 9 Credits/Units

99 hours of lecture
 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. 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.

ESL I-DEA
 ESL 010 18 Credits/Units

99 hours of lecture / 99 hours of lab
Prerequisite: CASAS score below 200 in Listening or Reading. This class will help you to improve your English skills in listening, speaking, reading, and writing. You will learn new skills to help you in your everyday life. You will learn about technology by using a computer to do some of your schoolwork. I-DEA is a blended course; half of your class time will be face-to-face (in the classroom with teacher and students), and half will be online (on the computer). Your teachers can help you with online work during lab time, after the face-to-face class time.

FOUNDATIONS: COMMUNICATION
 ESL 013 6 Credits/Units

66 hours of lecture
Prerequisite: CASAS scores below 200 in Listening and/or Reading. 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.

FOUNDATIONS: PROBLEM-SOLVING AND TECHNOLOGY
 ESL 015 5 Credits/Units

55 hours of lecture
Prerequisite: CASAS score below 200 in Listening and/or Reading. 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.

INTENSIVE EXPLORATIONS: STUDY SKILLS
 ESL 045 2 Credits/Units

22 hours of lecture
 Concurrent enrollment in ESL 047 and ESL 049.
Prerequisite: Current CASAS test scores in all skills. 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 (especially computer) and study skills as well as the oral and written communication skills to transition into Fast Track one. CASAS Listening test score between 200 and 209. CASAS Reading test score between 201 and 210.

EXPLORATIONS: ORAL COMMUNICATION/TECH
 ESL 046 6 Credits/Units

66 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. CASAS Listening test score between 200 and 209.

INTENSIVE EXPLORATIONS: ORAL COMMUNICATION/TECH
 ESL 047 7 Credits/Units

77 hours of lecture
 Concurrent enrollment in ESL 045 and ESL 049.
Prerequisite: Current CASAS test scores in all skills. 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). CASAS Listening test score between 200 and 209.

EXPLORATIONS: WRITTEN COMMUNICATION/TECH
 ESL 048 5 Credits/Units

55 hours of lecture
Prerequisite: Current CASAS test scores in all skills. 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. CASAS Reading test score between 201 and 210. OR successful completion of Foundations or ESL I-DEA.

INTENSIVE EXPLORATIONS:WRITTENCOMMUNICATION/TECH

ESL 049 7 Credits/Units

77 hours of lecture

Concurrent enrollment in ESL 045 and ESL 047.

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.

JUMPSTART READING/WRITING 1-4

ESL 076 6 Credits/Units

66 hours of lecture

Covers basic strategies to learn to read and comprehend words and word groups in simple text. Also covers basic strategies to write short, structured sentences on familiar topics with some effort but with few errors. Both skills will help students to independently accomplish simple, well-defined, and structured reading and writing activities in a few comfortable and familiar settings.

ESL SELECTED TOPICS

ESL 080 10 Credits/Units

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 2 Credits/Units

22 hours of lecture

Prerequisite: CASAS Reading test score under 210 and teacher recommendation.

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.

ESL MATH FOR TRANSITION

ESL 093 2 Credits/Units

22 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

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. CASAS Listening score of 200 or higher. CASAS Reading score of 201 or higher. [PNP]

READING, SPEAKING AND US CITIZENSHIP

ESL 095 3 Credits/Units

33 hours of lecture

Prerequisite: Current CASAS scores in all skills.

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. CASAS Listening and Reading scores of 190 or higher.

ENVIRONMENTAL SCIENCE (ENVS)

INTRODUCTION TO ENVIRONMENTAL SCIENCE
ENVS&101 5 Credits/Units

33 hours of lecture / 44 hours of lab

Prerequisite: Eligibility for MATH 096.

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. [NS]

INTEGRATED ENVIRONMENTAL SCIENCE
ENVS 109 5 Credits/Units

33 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in MATH 030 or eligibility for MATH 092.

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. [NS]

FIELD STUDIES IN ENVIRONMENTAL SCIENCE
ENVS 218 7 Credits/Units

22 hours of lecture / 110 hours of lab

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.

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. [NS, SE]

ENVIRONMENTAL SCIENCE: PROBLEM SOLVING
ENVS 221 5 Credits/Units

33 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in ENVS 211.

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. [SE]

ENVIRONMENTAL POLITICS
ENVS 231 5 Credits/Units

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
ENVS 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

PROJECTS
5 Credits/Units

SUSTAINABILITY & ENVIRONMENTAL PRACTICES
ENVS 430 5 Credits/Units

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]

GEOGRAPHY (GEOG)

INTRODUCTION TO GEOGRAPHY GEOG&100 5 Credits/Units

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/Units

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/Units

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/Units

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. [NS, SE, SS]

ECONOMIC GEOGRAPHY GEOG&207 5 Credits/Units

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/Units

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/Units

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/Units

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/Units

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 5 Credits/Units

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

GEOG 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

PROJECTS

5 Credits/Units

GEOLGY (GEOL)

INTRO **PHYSICAL** **GEOLOGY**
 GEOL&101 5 Credits/Units

33 hours of lecture / 44 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/Units

33 hours of lecture / 44 hours of lab

Plate tectonics and the origin of ocean basins and continents. Mass wasting, glaciation, streams, groundwater, deserts, shorelines and deep sea sediments. One day field trip required. [NS, SE]

COOPERATIVE WORK EXPERIENCE
 GEOL 199 3 Credits/Units

99 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

FIELD STUDIES IN GEOLOGY
 GEOL 218 6 Credits/Units

22 hours of lecture / 88 hours of lab

Prerequisite: Minimum of 10 credits in geology or consent of Instructional Unit.

Field trip program to study the geologic evolution of an area. Emphasis on interpretation of rocks and their structure. Duration, scope and field trip localities will vary. Food and personal gear provided by student. Maxivans provided for travel. Day hikes may be required. [NS, SE]

SPECIAL PROJECTS
 GEOL 290 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

HEALTH & PHYSICAL EDUCATION (HPE)

INDUSTRIAL HEALTH AND FITNESS
HPE 220 3 Credits/Units

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/Units

22 hours of lecture / 22 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/Units

22 hours of lecture / 22 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 5 Credits/Units

55 hours of lecture

Varying topics in Health Physical Education and sports, as listed in the term class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS
HPE 290 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

HEALTH (HLTH)

FOOD AND YOUR HEALTH

HLTH 100 2 Credits/Units
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/Units
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/Units
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/Units
22 hours of lecture
Exploration of the multiple factors that contribute to weight-related behaviors and body image. Focus on developing a healthy relationship with food and physical activity, and practicing sustainable skills for effective lifestyle management. [HE, SE] [PNP]

HAPPINESS AND YOUR HEALTH

HLTH 108 2 Credits/Units
22 hours of lecture
Exploration of the connection between happiness and your health. Focuses on science-based strategies to increase happiness, including gratitude, social connections, mindfulness, and stress management. Students will develop personalized behavior change strategies to advance well-being. [HE, SE]

ADULT CPR AND FIRST AID

HLTH 120 1 Credit/Unit
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.

WILDERNESS FIRST AID

HLTH 122 2 Credits/Units
22 hours of lecture
Prerequisite: Proof of current Adult CPR/AED certification (bring to first class).

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. [GE, SE]

PEDIATRIC FIRST AID & CPR

HLTH 123 1 Credit/Unit
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.

HEALTHCARE PROVIDER CPR AND FIRST AID

HLTH 124 1 Credit/Unit
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. [PNP]

HUMAN SEXUALITY

HLTH 206 2 Credits/Units
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 3 Credits/Units
33 hours of lecture
Exploration of women-specific health issues across the lifespan using a multidimensional approach. Students will evaluate the impact of individual, institutional, and cultural influences on women's health in the United States. Personalized behavior change strategies to advance health well be developed. [HE, SE]

MEN'S HEALTH

HLTH 208 2 Credits/Units
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 3 Credits/Units
33 hours of lecture
Exploration the complex interactions between culture, ethnicity, religion, gender, socioeconomic status, sexual orientation, age, social class, and ability as they relate to health behavior and outcomes. Develop personalized behavior change strategies to advance health. [HA, HE]

CANNABIS AND YOUR HEALTH

HLTH 212 2 Credits/Units
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 3 Credits/Units
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 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]

HEALTH INFORMATICS (HI)

INTRODUCTION TO US HEALTH CARE SYSTEM

HI 201 3 Credits/Units

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/Units

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/Units

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/Units

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]

HEALTH OCCUPATIONS (HEOC)

BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY HEOC 100

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

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

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

33 hours of lecture

Prerequisite: BIOL 164 (or 160) or HEOC 100, BMED 110, consent of Health Occupations or Business Technology Advisor.

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. [GE] [PNP]

LABORATORY PROCEDURES FOR THE MEDICAL OFFICE HEOC 160

22 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in BTEC 163 or consent of the Health Occupation Advisor.

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. [GE]

COOPERATIVE WORK EXPERIENCE HEOC 199

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

SELECTED

HEOC 280

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 term class schedule. [GE]

SPECIAL

HEOC 290

Prerequisite: Consent of the Science and Health Sciences Dean.

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. [GE]

TOPICS

5 Credits/Units

PROJECTS

15 Credits/Units

HISTORY (HIST)

WORLD CIVILIZATIONS I
 HIST&126 5 Credits/Units
 55 hours of lecture

The beginnings of civilization, c. 3500 BCE to the High Middle Ages, c. 950 CE. 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/Units
 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/Units
 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/Units
 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/Units
 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, Progressive reform movement and World War I. [SE, SS]

UNITED STATES HISTORY III
 HIST&148 5 Credits/Units
 55 hours of lecture

The Twenties, the Great Depression and the New Deal, World War II, the Cold War consensus, Vietnam and the Watergate era, globalization and the 21st century. [SE, SS]

PACIFIC NORTHWEST HISTORY
 HIST&214 5 Credits/Units
 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/Units
 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,SS] [PNP]

NATIVE AMERICAN HISTORY
 HIST&219 5 Credits/Units
 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/Units
 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/Units
 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/Units
 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/Units
 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/Units
 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

HIST 260

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]

HISTORY

5 Credits/Units

AFRICAN-AMERICAN

HIST 275

55 hours of lecture

Survey of the history of the African-American experience from 1619 to the present. [SE] [PNP]

HISTORY

5 Credits/Units

SELECTED

HIST 280

55 hours of lecture

Selected topics in History as listed in the term class schedule. May be repeated for credit. [SE]

TOPICS

5 Credits/Units

HISTORY

OF

LATIN

AMERICA

HIST 285

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]

5 Credits/Units

HONORS (HONS)

SPECIAL
HONS 290

PROJECTS:

HONORS
6 Credits/Units

Prerequisite: Consent of the Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department.

HUMAN DEVELOPMENT (HDEV)

CAREER AND LIFE PLANNING

HDEV 100 3 Credits/Units
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/Units
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/Units
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,HR]

SELF-ESTEEM

HDEV 105 2 Credits/Units
22 hours of lecture
Guided experience in self-motivation, values clarification, and empathetic regard for others. Structured small groups. [GE,HR]

MOTIVATION AND STUDY SKILLS

HDEV 116 2 Credits/Units
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/Units
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/Units
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/Units
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,HR]

BASIC MINDFULNESS SKILLS

HDEV 125 2 Credits/Units
22 hours of lecture
Mindfulness 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/Units
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/Units
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,HR]

STRESS MANAGEMENT

HDEV 186 1 Credit/Unit
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,HR]

WORKPLACE SUCCESS

HDEV 195 1 Credit/Unit
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,HR]

PORTFOLIO

HDEV 198

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,HR]

DEVELOPMENT

1 Credit/Unit

COOPERATIVE

HDEV 199

165 hours of clinical

Concurrent enrollment in HDEV 195, 198 or 200 required.

Prerequisite: Consent of Instructional Unit.

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

WORK**EXPERIENCE**

5 Credits/Units

PROFESSIONAL

HDEV 200

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,HR]

DEVELOPMENT

2 Credits/Units

SELECTED

HDEV 280

33 hours of lecture

Variety of topics in human development as listed in the term class schedule. May be repeated for credit. [GE]

TOPICS

3 Credits/Units

HUMAN SERVICES SUBSTANCE ABUSE (HSSA)

INTRO TO ADDICTIVE DRUGS
HSSA&101 5 Credits/Units

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 (IELP)

ESSENTIAL

IELP 061

55 hours of lecture

Prerequisite: Written assessment score of 0-2 and CaMLA EPT score of 1 to 39; or consent of Instructional Unit.

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.

WRITING

5 Credits/Units

ESSENTIAL

IELP 062

55 hours of lecture

Prerequisite: CaMLA EPT score of 1 to 39; or consent of Instructional Unit.

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.

ORAL

COMMUNICATION

5 Credits/Units

ESSENTIAL

IELP 063

55 hours of lecture

Prerequisite: CaMLA EPT score of 1 to 39; or consent of Instructional Unit.

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.

READING

5 Credits/Units

ESSENTIAL

IELP 064

33 hours of lecture

Prerequisite: Written assessment score of 0-2 and CaMLA EPT score of 1 to 39; or consent of Instructional Unit.

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.

INTEGRATED

SKILLS

3 Credits/Units

INTERMEDIATE

IELP 071

55 hours of lecture

Prerequisite: Written assessment score of 3 and CaMLA EPT score of 40-54; a grade of "C" or better in IELP 061; or consent of Instructional Unit.

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.

WRITING

5 Credits/Units

INTERMEDIATE

IELP 072

55 hours of lecture

Prerequisite: A grade of "C" or better in IELP 062; CaMLA EPT score of 40-54; or consent of Instructional Unit.

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.

ORAL

COMMUNICATION

5 Credits/Units

INTERMEDIATE

IELP 073

55 hours of lecture

Prerequisite: CaMLA EPT score of 49-54; a grade of "C" or better in IELP 063; or consent of Instructional Unit.

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.

READING

5 Credits/Units

INTERMEDIATE

IELP 074

33 hours of lecture

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 CaMLA EPT score of 40-54; a grade of "C" or better in IELP 064; or consent of Instructional Unit.

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.

INTEGRATED

SKILLS

3 Credits/Units

ADVANCED

IELP 081

55 hours of lecture

Prerequisite: Written assessment score of 4 and CaMLa EPT score of 55-64; a grade of "C" or better in IELP 071; or consent of Instructional Unit.

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.

WRITING

5 Credits/Units

UPPER

IELP 091

55 hours of lecture

Prerequisite: Written assessment score of 5 and CaMLA EPT score of 65-74; a grade of "C" or better in IELP 081; or consent of Instructional Unit.

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.

ADVANCED**WRITING**

5 Credits/Units

ADVANCED

IELP 082

55 hours of lecture

Prerequisite: A grade of "C" or better in IELP 072; CaMLA EPT score of 55-64; or consent of Instructional Unit.

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.

ORAL**COMMUNICATION**

5 Credits/Units

UPPER

IELP 092

55 hours of lecture

Prerequisite: A grade of "C" or better in IELP 082; CaMLA EPT score of 65-74; or consent of Instructional Unit.

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.

ADVANCED**ORAL****COMMUNICATION**

5 Credits/Units

ADVANCED

IELP 083

55 hours of lecture

Prerequisite: CaMLA EPT score of 55-64; a grade of "C" or better in IELP 073; or consent of Instructional Unit.

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.

READING

5 Credits/Units

UPPER

IELP 093

55 hours of lecture

Prerequisite: CaMLA EPT score of 65-74; a grade of "C" or better in IELP 083; or consent of Instructional Unit.

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.

ADVANCED**READING**

5 Credits/Units

ADVANCED

IELP 084

33 hours of lecture

Prerequisite: Written assessment score of 4 and CaMLA EPT score of 55-64; a grade of "C" or better in IELP 074; or consent of Instructional Unit.

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.

INTEGRATED**SKILLS**

3 Credits/Units

UPPER

IELP 094

33 hours of lecture

Prerequisite: Written assessment score of 5 and CaMLA EPT score of 65-74; a grade of "C" or better in IELP 084; or consent of Instructional Unit.

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.

ADVANCED**INTEGRATED****SKILLS**

3 Credits/Units

JAPANESE (JAPN)

JAPANESE **I**
 JAPN&121 5 Credits/Units
 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/Units
 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/Units
 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/Unit
 11 hours of lecture

Prerequisite: A grade of "C" or better or concurrent enrollment in JAPN 122 or above; or consent of Instructional Unit.
 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. [SE]

JAPANESE READING AND WRITING
 JAPN 151 1 Credit/Unit
 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/Unit
 11 hours of lecture
Prerequisite: A grade of "C" or better in JAPN 151.
 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. [SE] [PNP]

JAPANESE READING AND WRITING
 JAPN 153 1 Credit/Unit
 11 hours of lecture
Prerequisite: A grade of "C" or better in JAPN 152.
 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. [SE] [PNP]

JAPANESE SOCIETY
 JAPN 171 3 Credits/Units
 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/Units
 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/Units
 55 hours of lecture
Prerequisite: JAPN 221 or equivalent.
 Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [HA, SE]

JAPANESE **VI**
 JAPN&223 5 Credits/Units
 55 hours of lecture
Prerequisite: JAPN 222 or equivalent.
 Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [HA, SE]

SELECTED TOPICS
 JAPN 280 5 Credits/Units
 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 (JOUR)

INTRODUCTION **TO** **JOURNALISM**
JOUR 101 5 Credits/Units

55 hours of lecture

Prerequisite: ENGL 101 (or ENGL 101) eligibility required.

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. [HA, SE]

COLLEGE **NEWS** **PRODUCTION**
JOUR 110 3 Credits/Units

66 hours of lab

Prerequisite: A grade of "C" or better in JOUR 101, or equivalent, or consent of the Instructional Unit.

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; critique; 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. [GE, SE]

DIGITAL **NEWS**
JOUR 111 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in JOUR 101 or consent of the Instructional Unit.

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. [HA, GE, SE]

COLLEGE **NEWS** **PRODUCTION**
JOUR 120 3 Credits/Units

66 hours of lab

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.

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; critique; 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. [GE, SE]

COLLEGE **NEWS** **PRODUCTION**
JOUR 130 3 Credits/Units

66 hours of lab

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.

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; critique; 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. [GE, SE]

COOPERATIVE **WORK** **EXPERIENCE**
JOUR 199 5 Credits/Units

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

ADVANCED **NEWSWRITING**
JOUR 201 3 Credits/Units

33 hours of lecture

Prerequisite: JOUR 101.

Continuation of JOUR 101. Focus on longer, more complex stories, including features and opinion writing. Students will complete a short research project. [GE]

COLLEGE **NEWS** **PRODUCTION**
JOUR 210 3 Credits/Units

66 hours of lab

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.

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; critique; 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. [GE, SE]

COLLEGE **NEWS** **PRODUCTION**
JOUR 220 3 Credits/Units

66 hours of lab

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.

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; critique; 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. [GE, SE]

| | | |
|---|-------------|-------------------|
| COLLEGE | NEWS | PRODUCTION |
| JOUR 230 | | 3 Credits/Units |
| 66 hours of lab | | |
| 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. | | |
| 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; critique; 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. [GE, SE] | | |
| SELECTED | | TOPICS: |
| JOUR 280 | | 3 Credits/Units |
| 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 term class schedule. [GE] | | |
| SPECIAL | | PROJECTS |
| JOUR 290 | | 5 Credits/Units |
| Prerequisite: Consent of Instructional Unit. | | |
| Opportunity to plan, organize, and complete special projects approved by the department. [GE] | | |

MACHINING TECHNOLOGY (MACH)

BASIC GENERAL MACHINING PROCESSES MACH 111 5 Credits/Units

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/Units

22 hours of lecture / 66 hours of lab
Prerequisite: A grade of "C" or better in MACH 111 or concurrent enrollment in MACH 111.
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. [GE]

BASIC VERTICAL MILLING PROCESSES I MACH 113 5 Credits/Units

22 hours of lecture / 66 hours of lab
Prerequisite: A grade of "C" or better in MACH 111 or concurrent enrollment in MACH 111.
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. [GE]

BASIC SURFACE GRINDER PROCESSES I MACH 121 5 Credits/Units

22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111.
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. [GE]

BASIC ENGINE LATHE PROCESSES II MACH 122 5 Credits/Units

22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111 and MACH 112.
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. [GE]

BASIC VERTICAL MILLING PROCESSES II MACH 123 5 Credits/Units

22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111 and MACH 113.
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. [GE]

BASIC SURFACE GRINDER PROCESSES II MACH 131 5 Credits/Units

22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111 and MACH 121.
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. [GE]

BASIC ENGINE LATHE PROCESSES III MACH 132 5 Credits/Units

22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111, MACH 112 and MACH 122.
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. [GE]

BASIC VERTICAL MILLING PROCESSES III MACH 133 5 Credits/Units

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 5 Credits/Units

165 hours of clinical
Prerequisite: Consent of Instructional Unit.
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. [GE]

ELEMENTARY METALLURGY MACH 235 2 Credits/Units

22 hours of lecture
Concurrent enrollment in MACH 236 required.
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. Cannot receive credit for MTEC 235 and WELD 235 and MACH 235. [GE]

ELEMENTARY METALLURGY LAB MACH 236 2 Credits/Units

44 hours of lab
Concurrent enrollment in MACH 235 required.
Application of concepts and topics covered in MACH 235, including metallography, heat treatment, and testing of materials. Cannot receive credit for MTEC 236 and WELD 236 and MACH 236. [GE]

ADVANCED PRECISION MEASUREMENT MACH 241 5 Credits/Units

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 GDT 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/Units

22 hours of lecture / 66 hours of lab

Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.

Setup and operation of Haas TL-1 CNC Lathe. Creating and editing Intuitive Programming System conversational programs. [GE]

INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING
MACH 243 5 Credits/Units

22 hours of lecture / 66 hours of lab

Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.

Setup and operation of TRAK bed mill. Creating and editing PROTO TRAK conversational programs. [GE]

TOOLING CONCEPTS
MACH 251 5 Credits/Units

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/Units

22 hours of lecture / 66 hours of lab

Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.

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. [GE]

CNC MILLING SETUP AND OPERATION
MACH 253 5 Credits/Units

22 hours of lecture / 66 hours of lab

Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.

Setup and operation of the Haas vertical mill. Manually create and edit M and G code numerical control programs for the Haas vertical mill. [GE]

ADVANCED EDM PROCESSES
MACH 261 5 Credits/Units

22 hours of lecture / 66 hours of lab

Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.

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. [GE]

ADVANCED CNC LATHE PROGRAMMING
MACH 262 5 Credits/Units

22 hours of lecture / 66 hours of lab

Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.

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. [GE]

ADVANCED MILLING 3D PROGRAMMING AND MACHINING
MACH 263 5 Credits/Units

22 hours of lecture / 66 hours of lab

Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.

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. [GE]

SELECTED TOPICS
MACH 280 5 Credits/Units

55 hours of lecture

Prerequisite: Consent of Instructional Unit.

Selected topics in Machining as listed in the term class schedule.

Repeatable for credit. [GE]

SPECIAL PROJECTS
MACH 290 6 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

MANAGEMENT (MGMT)

PRINCIPLES OF MANAGEMENT

MGMT 101
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,HR]

APPLIED MANAGEMENT SKILLS

MGMT 103
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
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,HR]

SUPERVISORY COMMUNICATION, I, WRITTEN

MGMT 107
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. [CA,GE]

CREATIVE PROBLEM SOLVING

MGMT 110
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,HR]

CONFLICT MANAGEMENT

MGMT 112
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,HR][PNP]

SUPERVISOR AS A TRAINER COACH

MGMT 120
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,HR]

LEADERSHIP PRINCIPLES

MGMT 122
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,HR]

TEAM BUILDING AND GROUP BEHAVIOR

MGMT 125
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,HR]

PROJECT MANAGEMENT

MGMT 126
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
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,HR]

LEGAL ISSUES IN EMPLOYEE RELATIONS

MGMT 132
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,HR]

PRODUCTION AND OPERATIONS MANAGEMENT

MGMT 133
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
165 hours of clinical
Prerequisite: Completion of one class with a "C" or better in Business, Economics, or Management.
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. Written consent of Instructional Unit. [GE]

SELECTED

MGMT 280

55 hours of lecture

Varying topics in supervisory management, as listed in the term class schedule. May be repeated for credit. [GE]

TOPICS

5 Credits/Units

SPECIAL

MGMT 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

PROJECTS

5 Credits/Units

MATHEMATICS (MATH)

APPLIED **ELEMENTARY** **ALGEBRA**
MATH 092 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in CAP 040, MATH 030 or 089, or recommending score on placement test.

Provides students with a foundation in elementary algebra skills and applications, and prepares them for intermediate algebra. Topics include: numeracy; mathematical thinking; proportional reasoning; algebraic expressions; linear equations and inequalities in one variable; the coordinate plane; linear equations in two variables and graphing; systems of linear equations; and dimensional analysis. College success strategies are integrated throughout the course. [CP]

APPLIED **INTERMEDIATE** **ALGEBRA**
MATH 096 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 090 or 091 or 092, or CAP 042, or recommending score on placement test.

Covers intermediate algebra skills and applications, and prepares students for college-level mathematics. Topics include: functions; exponent rules; polynomial operations and basic factoring; defining and solving quadratic, rational and radical equations; and basic exponential and logarithmic equations and functions. Applications of these techniques to modeling and solving real-world problems are emphasized. College success strategies are integrated throughout the course. [CP]

COLLEGE **TRIG** **WITH** **SUPPLEMENTAL** **INSTRUCTION**
MATH 102 5 Credits/Units

55 hours of lecture / 55 hours of conference

Covers the same topics as college trigonometry (Math 103), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). 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. 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 096, recommending score on the placement test, or consent of the mathematics department. [CP, Q, SE]

COLLEGE **TRIGONOMETRY**
MATH 103 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or 095, or recommending score on placement test.

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. [Q, SE]

FINITE **MATH** **WITH** **SUPPLEMENTAL** **INSTRUCTION**
MATH 104 5 Credits/Units

55 hours of lecture / 55 hours of conference

Prerequisite: A grade of "C" or better in MATH 096, recommending score on the placement test, or consent of the mathematics department. Covers the same topics as finite mathematics (MATH 105), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). Lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [CP, Q, SE]

FINITE **MATHEMATICS**
MATH 105 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or 095 or 096, or recommending score on placement test.

Lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [Q, SE]

MATH **IN** **SOCIETY**
MATH&107 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or 095 or 096 or 097, or a grade of "B" or better in CAP 046, or recommending score on placement test.

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. [Q, SE]

COLLEGE **ALGEBRA** **WITH** **SUPPLEMENTAL** **INSTRUCTION**
MATH 110 5 Credits/Units

55 hours of lecture / 55 hours of conference

Prerequisite: A grade of "C" or better in MATH 096, recommending score on the placement test, or consent of the mathematics department. Covers the same topics as college algebra (MATH 111), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). An introduction to functions from symbolic, numerical, and graphical points of view. Topics include linear, polynomial, rational, radical, logarithmic, and exponential functions, systems of equations, conic sections, and mathematical modeling. This is 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. [CP, Q, SE]

COLLEGE **ALGEBRA**
MATH 111 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or 095, or recommending score on placement test.

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. [Q, SE]

MATH FOR ELEMENTARY TEACHERS

MATH 122

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or MATH 095 or 096, or recommending score on placement test.

The first of a three-term sequence of courses designed for prospective elementary school teachers. Focus on problem solving, set theory, numeration systems, whole number arithmetic, and fractions. [Q, SE]

MATH FOR ELEMENTARY TEACHERS

MATH 123

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 122.

The second of a three-term 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. [Q, SE]

MATH FOR ELEMENTARY TEACHERS

MATH 124

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 122.

The third of a three-term 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. [Q, SE]

CALCULUS FOR LIFE SCIENCES

MATH 140

6 Credits/Units

66 hours of lecture

Prerequisite: A grade of "C" or better in MATH 103 and 111, or recommending score on placement test.

Survey of differentiation and integration with applications to problems in Biology and Environmental Science. Please see advisor for transferability. [Q, SE]

INTRODUCTION TO STATISTICS

MATH&146

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or 095 or 096, or recommending score on placement test.

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. [Q]

STATISTICS II

MATH 147

3 Credits/Units

33 hours of lecture

Prerequisite: A grade of "C" or better in MATH 146.

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. [Q]

BUSINESS CALCULUS

MATH&148

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in Finite Math or College Trigonometry or recommending score on placement test.

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. [Q, SE]

CALCULUS I

MATH&151

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in College Algebra and College Trigonometry or recommending score on placement test.

First course in the four term 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. [Q, SE]

CALCULUS II

MATH&152

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 151 (MATH 113).

Second course in the four term 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. [Q, SE]

CALCULUS III

MATH&153

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 152 (MATH 211).

Third course in the four term 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. [Q, SE]

COOPERATIVE WORK EXPERIENCE

MATH 199

5 Credits/Units

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

LINEAR ALGEBRA

MATH 215

5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 152 (MATH 211).

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. [Q, SE]

DIFFERENTIAL

MATH 221

55 hours of lecture

Prerequisite: Concurrent enrollment in MATH 254 (MATH 213) or a grade of "C" or better in MATH 254 (MATH 213).

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. [Q, SE]

EQUATIONS

5 Credits/Units

CALCULUS

MATH&254

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 153 (or MATH 212).

Fourth course in the four term 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. [Q, SE]

IV

5 Credits/Units

SELECTED

MATH 280

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 term class schedules. [SE]

TOPICS

5 Credits/Units

SPECIAL

MATH 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

PROJECTS

5 Credits/Units

MECHATRONICS (MTX)

INDUSTRIAL

MTX 100

11 hours of lecture

Concurrent enrollment in MTX 101 or consent of Instructional Unit.

Prerequisite: A grade of "C" or better in MATH 030 or eligibility for MATH 092.

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. [GE]

DC

MTX 101

11 hours of lecture / 44 hours of lab

Concurrent enrollment in MTX 100 or consent of Instructional Unit.

Prerequisite: A grade of "C" or better in ENGL 098 and MATH 089 or MATH 092 or higher, or equivalent placement scores.

Fundamentals of DC circuits with emphasis on algebraic analysis of resistive networks. Includes hands-on experience in DC circuit construction, measurement and troubleshooting. [GE]

AC

MTX 102

22 hours of lecture / 44 hours of lab

Prerequisite: Successful completion of MTX 100, MTX 101, and MATH 089 or MATH 092.

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. [GE]

BASIC

MEASUREMENT

MTX 103

11 hours of lecture / 22 hours of lab

Concurrent enrollment in MTX 100 or consent of Instructional Unit.

Fundamentals of measurement tools. Topics include basic measurement, S.I. and U.S. customary measurement, precision measurement tools and dimensional gauging. [GE]

BASIC

MTX 105

22 hours of lecture / 22 hours of lab

Concurrent enrollment in MTX 100 or consent of Instructional Unit.

Fundamentals of hydraulics. Topics include hydraulic power systems, hydraulic circuits, principles of hydraulic pressure and flow and various types of hydraulic valves. [GE]

BASIC

MTX 107

11 hours of lecture / 22 hours of lab

Concurrent enrollment in MTX 102.

Prerequisite: Successful completion of MTX 100 and MTX 101 or consent of Instructional Unit.

Fundamentals of pneumatics. Topics include pneumatic power systems, basic pneumatic circuits principles of pneumatic pressure and flow and pneumatic speed control. [GE]

SAFETY

1 Credit/Unit

FUNDAMENTALS

3 Credits/Units

FUNDAMENTALS

4 Credits/Units

TOOLS

2 Credits/Units

HYDRAULICS

3 Credits/Units

PNEUMATICS

2 Credits/Units

ELECTRIC

MTX 110

22 hours of lecture / 44 hours of lab

Concurrent enrollment in MTX 102.

Prerequisite: Successful completion of MTX 100 and MTX 101 or consent of Instructional Unit.

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. [GE]

ELECTRICAL

MTX 113

11 hours of lecture / 22 hours of lab

Concurrent enrollment in MTX 102.

Prerequisite: Successful completion of MTX 100 and MTX 101 or consent of Instructional Unit.

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. [GE]

MECHATRONICS

MTX 117

11 hours of lecture / 22 hours of lab

Prerequisite: Successful completion of MTX 102 or consent of Instructional Unit.

Fundamentals of mechatronics. Topics include automation operations, control systems, mechatronic safety, component adjustments, manual operation, pneumatic and electric pick and place. [GE]

MECHANICAL

MTX 120

22 hours of lecture / 22 hours of lab

Prerequisite: Successful completion of MTX 102 or consent of Instructional Unit.

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. [GE]

SEMICONDUCTORS

MTX 121

11 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in MTX 101 and MTX 102 or consent of Instructional Unit.

Fundamentals and applications of diodes, transistors and special-purpose semiconductor devices. Includes hands-on experience in semiconductor circuit construction, measurement and troubleshooting. [GE]

PICK

MTX 123

11 hours of lecture / 44 hours of lab

Prerequisite: Successful completion of MTX 102 or consent of Instructional Unit.

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. [GE]

MOTOR

CONTROL

1

4 Credits/Units

POWER

DISTRIBUTION

2 Credits/Units

1

2 Credits/Units

1

3 Credits/Units

1

3 Credits/Units

AND

PLACE

ROBOT

3 Credits/Units

| | | | | | | |
|--|-------------------|--------------------|--|---|----------------|-------------------|
| SERVO | | ROBOT | ELECTRIC | MOTOR | CONTROL | 2 |
| MTX 125 | | 3 Credits/Units | MTX 165 | | | 4 Credits/Units |
| 22 hours of lecture / 22 hours of lab | | | 22 hours of lecture / 44 hours of lab | | | |
| Prerequisite: Successful completion of MTX 102 or consent of Instructional Unit. | | | Prerequisite: A grade of "C" or better in MTX 110 or consent of Instructional Unit. | | | |
| Introduction to the articulated arm servo robot using the SMC system. | | | Introduction to electric motor control troubleshooting techniques. | | | |
| Topics include basic robot operation, teach point programming, PC software programming, application development, flexible manufacturing cells, quality control and production control. [GE] | | | Techniques include control component, motor starter and systems troubleshooting methods. Related topics include various motor braking methods and power distribution. [GE] | | | |
| PIPING | | | CO-OP | WORK | | EXPERIENCE |
| MTX 127 | | 2 Credits/Units | MTX 199 | | | 5 Credits/Units |
| 11 hours of lecture / 22 hours of lab | | | 165 hours of clinical | | | |
| Concurrent enrollment in MTX 102. | | | Prerequisite: Completion of, or concurrent enrollment in HDEV 105, 198 or 200 required. | | | |
| Prerequisite: Successful completion of MTX 100 and MTX 101 or consent of Instructional Unit. | | | 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. Consent of Instructional Unit. [GE] | | | |
| Fundamentals of piping. Topics include metal piping systems, metal piping installation, metal tubing systems and hoses. [GE] | | | | | | |
| PROGRAMMABLE | LOGIC | CONTROLLERS | 1 | | | |
| MTX 130 | | | 4 Credits/Units | FLOW | PROCESS | CONTROL |
| 22 hours of lecture / 44 hours of lab | | | | MTX 205 | | 5 Credits/Units |
| Prerequisite: Successful completion of MTX 102 or consent of Instructional Unit. | | | | 33 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. [GE] | | | | Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. | | |
| 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. [GE] | | | | | | |
| INDUSTRIAL | ELECTRICAL | WIRING | | THERMAL | PROCESS | CONTROL |
| MTX 135 | | 3 Credits/Units | | MTX 207 | | 5 Credits/Units |
| 11 hours of lecture / 44 hours of lab | | | | 33 hours of lecture / 44 hours of lab | | |
| Prerequisite: Successful completion of MTX 102 or consent of Instructional Unit. | | | | Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. | | |
| 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. [GE] | | | | 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. [GE] | | |
| MECHANICAL | DRIVES | 2 | | ELECTRO-FLUID | | POWER |
| MTX 150 | | 2 Credits/Units | | MTX 210 | | 4 Credits/Units |
| 11 hours of lecture / 22 hours of lab | | | | 22 hours of lecture / 44 hours of lab | | |
| Prerequisite: A grade of "C" or better in MTX 120 or consent of Instructional Unit. | | | | Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. | | |
| 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. [GE] | | | | 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. [GE] | | |
| DC | | DRIVES | | MECHATRONICS | | 2 |
| MTX 153 | | 4 Credits/Units | | MTX 216 | | 5 Credits/Units |
| 22 hours of lecture / 44 hours of lab | | | | 33 hours of lecture / 44 hours of lab | | |
| Prerequisite: Successful completion of MTX 102 or consent of Instructional Unit. | | | | Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. | | |
| Introduction to DC drives. Topics include DC motion control, SCR control, DC spindle drives, DC axis drives and DC pulse width modulation drives. [GE] | | | | 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. [GE] | | |

| | | | | | | | | |
|---|---------------------|---------------|---------------------------------------|---|-------------------|------------|----------------------------------|--|
| WORKPLACE MTX 220 11 hours of lecture / 22 hours of lab Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. Introduction to the enterprise system: topics include technology sectors, team concepts, product design, business presentation and business presentation software. [GE] | ORGANIZATION | AND | PRACTICES 2 Credits/Units | ADVANCED MTX 260 22 hours of lecture / 22 hours of lab Prerequisite: A grade of "C" or better in MTX 107, equivalent, or consent of Instructional Unit. 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. [GE] | PNEUMATICS | AND | VACUUM 3 Credits/Units | |
| WORK MTX 223 22 hours of lecture / 22 hours of lab Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. Intermediate concepts of the enterprise system. Topics include team development, team problem solving, product design analysis and engineering impacts. [GE] | TEAMS | AND | PRODUCT 3 Credits/Units | DESIGN | | | | |
| SPEED MTX 225 11 hours of lecture / 22 hours of lab 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. 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. [GE] | CONTROL | | SYSTEMS 2 Credits/Units | | | | | |
| MECHANICAL MTX 227 22 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in MTX 150 or consent of Instructional Unit. 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. [GE] | | DRIVES | 3 4 Credits/Units | | | | | |
| LASER MTX 230 11 hours of lecture / 22 hours of lab Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. 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. [GE] | | | ALIGNMENT 2 Credits/Units | | | | | |
| ADVANCED MTX 250 22 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in MTX 130, or equivalent, or consent of Instructional Unit. 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. [GE] | PROGRAMMABLE | LOGIC | CONTROLLERS 4 Credits/Units | | | | | |
| | | | | CAPSTONE MTX 270 66 hours of lab Prerequisite: Consent of Instructional Unit. 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. [GE] | | | 3 Credits/Units | |
| | | | | PROJECT MTX 285 11 hours of lecture / 22 hours of lab Prerequisite: Successful completion of MTX 102 with a grade of "C" or better or consent of Instructional Unit. Introduction to project management within the enterprise system. Various topics include project management, lean manufacturing and industrial engineering systems. [GE] | MANAGEMENT | AND | LEAN | MANUFACTURING 2 Credits/Units |
| | | | | SPECIAL MTX 290 55 hours of conference Prerequisite: Consent of Instructional Unit. Opportunity to plan, organize, and complete special projects approved by the department. [GE] | | | | PROJECTS 5 Credits/Units |
| | | | | ORGANIZATIONAL MTX 295 22 hours of lecture / 22 hours of lab 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. Introduction to economics and marketing techniques applicable to the business enterprise. Topics include enterprise economics, marketing basics and entrepreneurship. [GE] | | | | ENTREPRENEURSHIP 3 Credits/Units |

METEOROLOGY (METR)

ATMOSPHERE AND THE ENVIRONMENT
METR 101 5 Credits/Units

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 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan and complete special projects approved by the Instructional Unit. [GE]

MUSIC (MUSC)

SPECIAL

MUSC 100

55 hours of lecture

Special workshops on various musical topics as listed in the term class schedule. [HA, SE]

SEMINARS

5 Credits/Units

BEGINNING

PIANO

CLASS

MUSC 101

2 Credits/Units

22 hours of lecture

Beginning-level study of the piano. [HB, SE]

MUSIC

MUSC&104

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]

APPRECIATION

3 Credits/Units

MUSIC

IN

EARLY

CHILDHOOD

EDUCATION

MUSC 106

3 Credits/Units

33 hours of lecture

Introduction to music as a teaching tool for young children, and to the importance of music in the educational development of children.

Students develop skills in reading music, working with the musical abilities of young children, and using music in the classroom. [HB, SE]

BEGINNING

GUITAR

CLASS

MUSC 110

2 Credits/Units

22 hours of lecture

Beginning-level study of the guitar. [HB, SE]

BEGINNING

VOICE

CLASS

MUSC 115

2 Credits/Units

11 hours of lecture / 22 hours of lab

Basic technique and knowledge about singing. No previous experience or music study required. [HB, SE]

MUSIC HISTORY: MIDDLE AGES TO BAROQUE

MUSC 116

5 Credits/Units

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/Units

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/Units

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

MUSC&121

22 hours of lab

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]

TRAINING

1

1 Credit/Unit

EAR

MUSC&122

22 hours of lab

Prerequisite: MUSC 121 or consent of Instructional Unit.

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. [HB, SE]

TRAINING

2

1 Credit/Unit

EAR

MUSC&123

22 hours of lab

Prerequisite: MUSC 122 or consent of Instructional Unit.

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. [HB, SE]

TRAINING

3

1 Credit/Unit

ROCK

MUSC 125

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]

MUSIC

3 Credits/Units

WORLD

MUSC 127

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]

FOLK

MUSIC

3 Credits/Units

JAZZ

MUSC 135

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]

APPRECIATION

3 Credits/Units

CLARK

MUSC 137

11 hours of lecture / 22 hours of lab

Prerequisite: Audition or consent of Instructional Unit.

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. [HB, SE] [PNP]

COLLEGE

CHORALE

2 Credits/Units

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| CLARK MUSC 138 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. 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. [HB, SE] [PNP] | COLLEGE | CHORALE 2 Credits/Units | WOMEN'S MUSC 153 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP] | CHORAL | ENSEMBLE 2 Credits/Units |
| CLARK MUSC 139 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. 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. [HB, SE] [PNP] | COLLEGE | CHORALE 2 Credits/Units | WOMEN'S MUSC 154 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP] | CHORAL | ENSEMBLE 2 Credits/Units |
| MUSIC MUSC&141 55 hours of lecture Concurrent enrollment in MUSC& 121 required. 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. [HA, SE] | THEORY | I 5 Credits/Units | APPLIED MUSC 170 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private voice lessons. [HB, SE] | | VOICE 1 Credit/Unit |
| MUSIC MUSC&142 55 hours of lecture Concurrent enrollment in MUSC& 122 required. Prerequisite: MUSC 141 or consent of Instructional Unit. 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. [HA, SE] | THEORY | II 5 Credits/Units | APPLIED MUSC 171 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private voice lessons. [HB, SE] | | VOICE 1 Credit/Unit |
| MUSIC MUSC&143 55 hours of lecture Concurrent enrollment in MUSC& 123 required. Prerequisite: MUSC 142 or consent of Instructional Unit. Continuation of MUSC 142. Chromatic chords, popular song forms and jazz-related harmonies and forms. [HA, SE] | THEORY | III 5 Credits/Units | APPLIED MUSC 172 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private voice lessons. [HB, SE] | | VOICE 1 Credit/Unit |
| ORCHESTRA MUSC 150 11 hours of lecture / 22 hours of lab Performance of orchestral literature from a variety of periods and styles. [HB, SE] | | 2 Credits/Units | APPLIED MUSC 173 11 hours of lecture Prerequisite: MUSC 201 and written consent of Instructional Unit required. Private piano lessons. For students with some previous keyboard experience. [HB, SE] | | PIANO 1 Credit/Unit |
| ORCHESTRA MUSC 151 11 hours of lecture / 22 hours of lab Performance of orchestral literature from a variety of periods and styles. [HB, SE] | | 2 Credits/Units | APPLIED MUSC 174 11 hours of lecture Prerequisite: MUSC 201 and written consent of Instructional Unit required. Private piano lessons. For students with some previous keyboard experience. [HB, SE] | | PIANO 1 Credit/Unit |
| ORCHESTRA MUSC 152 11 hours of lecture / 22 hours of lab Performance of orchestral literature from a variety of periods and styles. [HB, SE] | | 2 Credits/Units | APPLIED MUSC 175 11 hours of lecture Prerequisite: MUSC 201 and written consent of Instructional Unit required. Private piano lessons. For students with some previous keyboard experience. [HB, SE] | | PIANO 1 Credit/Unit |

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| CONCERT MUSC 180 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 term. 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] | BAND 2 Credits/Units | INSTRUMENTAL MUSC 193 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] | ENSEMBLE 2 Credits/Units |
| CONCERT MUSC 181 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 term. 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] | BAND 2 Credits/Units | JAZZ MUSC 195 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] | ENSEMBLE 2 Credits/Units |
| CONCERT MUSC 182 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 term. 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] | BAND 2 Credits/Units | JAZZ MUSC 196 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] | ENSEMBLE 2 Credits/Units |
| CONCERT MUSC 183 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [HB, SE] | CHOIR 2 Credits/Units | JAZZ MUSC 197 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] | ENSEMBLE 2 Credits/Units |
| CONCERT MUSC 184 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [HB, SE] | CHOIR 2 Credits/Units | INTERMEDIATE MUSC 201 22 hours of lecture Prerequisite: MUSC 101 or consent of Instructional Unit. Intermediate-level study of the piano. [HB, SE] | PIANO CLASS 2 Credits/Units |
| CONCERT MUSC 185 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [HB, SE] | CHOIR 2 Credits/Units | ADVANCED MUSC 202 22 hours of lecture Prerequisite: MUSC 201 or consent of Instructional Unit. A continuation of instruction from Intermediate Piano. Baroque, classic, romantic, and contemporary repertoire, jazz stylings and fake books. [HB, SE] | PIANO CLASS 2 Credits/Units |
| JAZZ MUSC 186 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] | IMPROVISATION 2 Credits/Units | INTERMEDIATE MUSC 210 22 hours of lecture Prerequisite: MUSC 110 or consent of Instructional Unit. Intermediate-level study of the guitar. [HB, SE] | GUITAR CLASS 2 Credits/Units |

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| EAR MUSC&221 22 hours of lab Prerequisite: MUSC 123. Continuation of MUSC 123. Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [HB, SE] | TRAINING | 4 1 Credit/Unit | CLARK MUSC 239 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. 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. [HB, SE] [PNP] | COLLEGE | CHORALE 2 Credits/Units |
| EAR MUSC&222 22 hours of lab Prerequisite: MUSC 221. Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [HB, SE] | TRAINING | 5 1 Credit/Unit | ORCHESTRA MUSC 250 11 hours of lecture / 22 hours of lab Performance of orchestral literature from a variety of periods and styles. [HB, SE] | | 2 Credits/Units |
| EAR MUSC&223 22 hours of lab Prerequisite: MUSC 222. Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [HB, SE] | TRAINING | 6 1 Credit/Unit | ORCHESTRA MUSC 251 11 hours of lecture / 22 hours of lab Performance of orchestral literature from a variety of periods and styles. [HB, SE] | | 2 Credits/Units |
| MUSIC MUSC&231 33 hours of lecture Concurrent enrollment in MUSC& 221 required. Prerequisite: MUSC 143 or consent of division. Extended chromatic chords, borrowed chords, Neapolitan 6th chords, augmented 6th chords, and study of two part inventions and fugue. [HA, SE] | THEORY | IV 3 Credits/Units | ORCHESTRA MUSC 252 11 hours of lecture / 22 hours of lab Performance of orchestral literature from a variety of periods and styles. [HB, SE] | | 2 Credits/Units |
| MUSIC MUSC&232 33 hours of lecture Concurrent enrollment in MUSC& 222 required. Prerequisite: MUSC 231 or consent of Instructional Unit. Study of altered dominants, chromatic mediants, variation form, sonata form, and rondo form. [HA, SE] | THEORY | V 3 Credits/Units | WOMEN'S MUSC 253 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP] | CHORAL | ENSEMBLE 2 Credits/Units |
| MUSIC MUSC&233 33 hours of lecture Concurrent enrollment in MUSC& 223 required. Prerequisite: MUSC 232 or consent of Instructional Unit. Extensions of harmonic language and compositional style of the 20th/21st century, including atonal forms. [HA, SE] | THEORY | VI 3 Credits/Units | WOMEN'S MUSC 254 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP] | CHORAL | ENSEMBLE 2 Credits/Units |
| CLARK MUSC 237 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. 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. [HB, SE] [PNP] | COLLEGE | CHORALE 2 Credits/Units | WOMEN'S MUSC 255 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP] | CHORAL | ENSEMBLE 2 Credits/Units |
| CLARK MUSC 238 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. 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. [HB, SE] [PNP] | COLLEGE | CHORALE 2 Credits/Units | APPLIED MUSC 270 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private voice lessons. [HB, SE] | | VOICE 1 Credit/Unit |
| | | | APPLIED MUSC 271 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private voice lessons. [HB, SE] | | VOICE 1 Credit/Unit |
| | | | APPLIED MUSC 272 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private voice lessons. [HB, SE] | | VOICE 1 Credit/Unit |

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| <p>APPLIED MUSC 273 11 hours of lecture Prerequisite: MUSC 201 and consent of Instructional Unit. Private piano lessons. For students with some previous keyboard experience. [HB, SE]</p> | <p>PIANO 1 Credit/Unit</p> | <p>CONCERT MUSC 284 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [HB, SE]</p> | <p>CHOIR 2 Credits/Units</p> |
| <p>APPLIED MUSC 274 11 hours of lecture Prerequisite: MUSC 201 and consent of Instructional Unit. Private piano lessons. For students with some previous keyboard experience. [HB, SE]</p> | <p>PIANO 1 Credit/Unit</p> | <p>CONCERT MUSC 285 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [HB, SE]</p> | <p>CHOIR 2 Credits/Units</p> |
| <p>APPLIED MUSC 275 11 hours of lecture Prerequisite: MUSC 201 and consent of Instructional Unit. Private piano lessons. For students with some previous keyboard experience. [HB, SE]</p> | <p>PIANO 1 Credit/Unit</p> | <p>SPECIAL MUSC 290 Prerequisite: Consent of Instructional Unit. Opportunity to plan, organize and complete special projects approved by the department. [HB, GE]</p> | <p>PROJECTS 5 Credits/Units</p> |
| <p>CONCERT MUSC 280 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 term. 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]</p> | <p>BAND 2 Credits/Units</p> | <p>JAZZ MUSC 295 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]</p> | <p>ENSEMBLE 2 Credits/Units</p> |
| <p>CONCERT MUSC 281 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 term. 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]</p> | <p>BAND 2 Credits/Units</p> | <p>JAZZ MUSC 296 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]</p> | <p>ENSEMBLE 2 Credits/Units</p> |
| <p>CONCERT MUSC 282 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 term. 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]</p> | <p>BAND 2 Credits/Units</p> | <p>JAZZ MUSC 297 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]</p> | <p>ENSEMBLE 2 Credits/Units</p> |
| <p>CONCERT MUSC 283 11 hours of lecture / 22 hours of lab Prerequisite: Audition or consent of Instructional Unit. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [HB, SE]</p> | <p>CHOIR 2 Credits/Units</p> | <p>APPLIED MUSCA101 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private flute lessons. [HA, SE]</p> | <p>INSTRUMENT:FLUTE 1 Credit/Unit</p> |

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| APPLIED MUSCA102 11 hours of lecture Prerequisite: Written consent of Instructional Unit. Private violin lessons. [HB, SE] | INSTRUMENT:VIOLIN 1 Credit/Unit | APPLIED MUSCA113 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private percussion lessons. [HB, SE] | INSTRUMENT:PERCUSSION 1 Credit/Unit |
| APPLIED MUSCA103 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private cello lessons. [HB, SE] | INSTRUMENT:CELLO 1 Credit/Unit | APPLIED MUSCA114 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private oboe lessons. [HB, SE] | INSTRUMENT:OBOE 1 Credit/Unit |
| APPLIED MUSCA104 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private viola lessons. [HB, SE] | INSTRUMENT:VIOLA 1 Credit/Unit | APPLIED MUSCA115 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private euphonium lessons. [HB, SE] | INSTRUMENT:EUPHONIUM 1 Credit/Unit |
| APPLIED MUSCA105 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trumpet lessons. [HB, SE] | INSTRUMENT:TRUMPET 1 Credit/Unit | APPLIED MUSCA116 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private tuba lessons. [HB, SE] | INSTRUMENT:TUBA 1 Credit/Unit |
| APPLIED MUSCA106 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private guitar lessons. [HB, SE] | INSTRUMENT:GUITAR 1 Credit/Unit | APPLIED MUSCA131 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private flute lessons. Continuation of MUSCA 101. [HB, SE] | INSTRUMENT:FLUTE 1 Credit/Unit |
| APPLIED MUSCA107 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. [HB, SE] | INSTRUMENT:CLARINET 1 Credit/Unit | APPLIED MUSCA132 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private violin lessons. Continuation of MUSCA 102. [HB, SE] | INSTRUMENT:VIOLIN 1 Credit/Unit |
| APPLIED MUSCA108 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bass lessons. [HB, SE] | INSTRUMENT:BASS 1 Credit/Unit | APPLIED MUSCA133 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private cello lessons. Continuation of MUSCA 103. [HB, SE] | INSTRUMENT:CELLO 1 Credit/Unit |
| APPLIED MUSCA109 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private horn lessons. [HB, SE] | INSTRUMENT:HORN 1 Credit/Unit | APPLIED MUSCA134 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private viola lessons. Continuation of MUSCA 104. [HB, SE] | INSTRUMENT:VIOLA 1 Credit/Unit |
| APPLIED MUSCA110 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bassoon lessons. [HB, SE] | INSTRUMENT:BASSOON 1 Credit/Unit | APPLIED MUSCA135 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trumpet lessons. Continuation of MUSCA 105. [HB, SE] | INSTRUMENT:TRUMPET 1 Credit/Unit |
| APPLIED MUSCA111 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trombone lessons. [HB, SE] | INSTRUMENT:TROMBONE 1 Credit/Unit | APPLIED MUSCA136 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private guitar lessons. Continuation of MUSCA 106. [HB, SE] | INSTRUMENT:GUITAR 1 Credit/Unit |
| APPLIED MUSCA112 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private sax lessons. [HB, SE] | INSTRUMENT:SAX 1 Credit/Unit | APPLIED MUSCA137 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 107. [HB, SE] | INSTRUMENT:CLARINET 1 Credit/Unit |

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| APPLIED MUSCA138 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bass lessons. Continuation of MUSCA 108. [HB, SE] | INSTRUMENT:BASS 1 Credit/Unit | APPLIED MUSCA173 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private cello lessons. Continuation of MUSCA 133. [HB, SE] | INSTRUMENT:CELLO 1 Credit/Unit |
| APPLIED MUSCA139 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private horn lessons. Continuation of MUSCA 109. [HB, SE] | INSTRUMENT:HORN 1 Credit/Unit | APPLIED MUSCA174 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private viola lessons. Continuation of MUSCA 134. [HB, SE] | INSTRUMENT:VIOLA 1 Credit/Unit |
| APPLIED MUSCA140 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bassoon lessons. Continuation of MUSCA 110. [HB, SE] | INSTRUMENT:BASSOON 1 Credit/Unit | APPLIED MUSCA175 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trumpet lessons. Continuation of MUSCA 135. [HB, SE] | INSTRUMENT:TRUMPET 1 Credit/Unit |
| APPLIED MUSCA141 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trombone lessons. Continuation of MUSCA 111. [HB, SE] | INSTRUMENT:TROMBONE 1 Credit/Unit | APPLIED MUSCA176 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private guitar lessons. Continuation of MUSCA 136. [HB, SE] | INSTRUMENT:GUITAR 1 Credit/Unit |
| APPLIED MUSCA142 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private sax lessons. Continuation of MUSCA 112. [HB, SE] | INSTRUMENT:SAX 1 Credit/Unit | APPLIED MUSCA177 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 137. [HB, SE] | INSTRUMENT:CLARINET 1 Credit/Unit |
| APPLIED MUSCA143 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private percussion lessons. Continuation of MUSCA 113. [HB, SE] | INSTRUMENT:PERCUSSION 1 Credit/Unit | APPLIED MUSCA178 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bass lessons. Continuation of MUSCA 138. [HB, SE] | INSTRUMENT:BASS 1 Credit/Unit |
| APPLIED MUSCA144 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private oboe lessons. Continuation of MUSCA 114. [HB, SE] | INSTRUMENT:OBOE 1 Credit/Unit | APPLIED MUSCA179 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private horn lessons. Continuation of MUSCA 139. [HB, SE] | INSTRUMENT:HORN 1 Credit/Unit |
| APPLIED MUSCA145 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private euphonium lessons. Continuation of MUSCA 115. [HB, SE] | INSTRUMENT:EUPHONIUM 1 Credit/Unit | APPLIED MUSCA180 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bassoon lessons. Continuation of MUSCA 140. [HB, SE] | INSTRUMENT:BASSOON 1 Credit/Unit |
| APPLIED MUSCA146 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private tuba lessons. Continuation of MUSCA 116. [HB, SE] | INSTRUMENT:TUBA 1 Credit/Unit | APPLIED MUSCA181 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trombone lessons. Continuation of MUSCA 141. [HB, SE] | INSTRUMENT:TROMBONE 1 Credit/Unit |
| APPLIED MUSCA171 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private flute lessons. Continuation of MUSCA 131. [HB, SE] | INSTRUMENT:FLUTE 1 Credit/Unit | APPLIED MUSCA182 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private sax lessons. Continuation of MUSCA 142. [HB, SE] | INSTRUMENT:SAX 1 Credit/Unit |
| APPLIED MUSCA172 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private violin lessons. Continuation of MUSCA 132. [HB, SE] | INSTRUMENT:VIOLIN 1 Credit/Unit | APPLIED MUSCA183 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private percussion lessons. Continuation of MUSCA 143. [HB, SE] | INSTRUMENT:PERCUSSION 1 Credit/Unit |

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| APPLIED MUSCA184 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private oboe lessons. Continuation of MUSCA 144. [HB, SE] | INSTRUMENT:OBOE 1 Credit/Unit | APPLIED MUSCA209 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private horn lessons. Continuation of MUSCA 179. [HB, SE] | INSTRUMENT:HORN 1 Credit/Unit |
| APPLIED MUSCA185 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private euphonium lessons. Continuation of MUSCA 145. [HB, SE] | INSTRUMENT:EUPHONIUM 1 Credit/Unit | APPLIED MUSCA210 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bassoon lessons. Continuation of MUSCA 180. [HB, SE] | INSTRUMENT:BASSOON 1 Credit/Unit |
| APPLIED MUSCA186 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private tuba lessons. Continuation of MUSCA 146. [HB, SE] | INSTRUMENT:TUBA 1 Credit/Unit | APPLIED MUSCA211 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trombone lessons. Continuation of MUSCA 181. [HB, SE] | INSTRUMENT:TROMBONE 1 Credit/Unit |
| APPLIED MUSCA201 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private flute lessons. Continuation of MUSCA 171. [HB, SE] | INSTRUMENT:FLUTE 1 Credit/Unit | APPLIED MUSCA212 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private sax lessons. Continuation of MUSCA 182. [HB, SE] | INSTRUMENT:SAX 1 Credit/Unit |
| APPLIED MUSCA202 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private violin lessons. Continuation of MUSCA 172. [HB, SE] | INSTRUMENT:VIOLIN 1 Credit/Unit | APPLIED MUSCA213 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private percussion lessons. Continuation of MUSCA 183. [HB, SE] | INSTRUMENT:PERCUSSION 1 Credit/Unit |
| APPLIED MUSCA203 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private cello lessons. Continuation of MUSCA 173. [HB, SE] | INSTRUMENT:CELLO 1 Credit/Unit | APPLIED MUSCA214 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private oboe lessons. Continuation of MUSCA 184. [HB, SE] | INSTRUMENT:OBOE 1 Credit/Unit |
| APPLIED MUSCA204 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private viola lessons. Continuation of MUSCA 174. [HB, SE] | INSTRUMENT:VIOLA 1 Credit/Unit | APPLIED MUSCA215 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private euphonium lessons. Continuation of MUSCA 185. [HB, SE] | INSTRUMENT:EUPHONIUM 1 Credit/Unit |
| APPLIED MUSCA205 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trumpet lessons. Continuation of MUSCA 175. [HB, SE] | INSTRUMENT:TRUMPET 1 Credit/Unit | APPLIED MUSCA216 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private tuba lessons. Continuation of MUSCA 186. [HB, SE] | INSTRUMENT:TUBA 1 Credit/Unit |
| APPLIED MUSCA206 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private guitar lessons. Continuation of MUSCA 176. [HB, SE] | INSTRUMENT:GUITAR 1 Credit/Unit | APPLIED MUSCA231 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private flute lessons. Continuation of MUSCA 201. [HB, SE] | INSTRUMENT:FLUTE 1 Credit/Unit |
| APPLIED MUSCA207 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 177. [HB, SE] | INSTRUMENT:CLARINET 1 Credit/Unit | APPLIED MUSCA232 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private violin lessons. Continuation of MUSCA 202. [HB, SE] | INSTRUMENT:VIOLIN 1 Credit/Unit |
| APPLIED MUSCA208 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bass lessons. Continuation of MUSCA 178. [HB, SE] | INSTRUMENT:BASS 1 Credit/Unit | APPLIED MUSCA233 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private cello lessons. Continuation of MUSCA 203. [HB, SE] | INSTRUMENT:CELLO 1 Credit/Unit |

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| APPLIED MUSCA234 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private viola lessons. Continuation of MUSCA 204. [HB, SE] | INSTRUMENT:VIOLA 1 Credit/Unit | APPLIED MUSCA245 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private euphonium lessons. Continuation of MUSCA 215. [HB, SE] | INSTRUMENT:EUPHONIUM 1 Credit/Unit |
| APPLIED MUSCA235 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trumpet lessons. Continuation of MUSCA 205. [HB, SE] | INSTRUMENT:TRUMPET 1 Credit/Unit | APPLIED MUSCA246 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private tuba lessons. Continuation of MUSCA 216. [HB, SE] | INSTRUMENT:TUBA 1 Credit/Unit |
| APPLIED MUSCA236 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private guitar lessons. Continuation of MUSCA 206. [HB, SE] | INSTRUMENT:GUITAR 1 Credit/Unit | APPLIED MUSCA271 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private flute lessons. Continuation of MUSCA 231. [HB, SE] | INSTRUMENT:FLUTE 1 Credit/Unit |
| APPLIED MUSCA237 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 207. [HB, SE] | INSTRUMENT:CLARINET 1 Credit/Unit | APPLIED MUSCA272 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private violin lessons. Continuation of MUSCA 232. [HB, SE] | INSTRUMENT:VIOLIN 1 Credit/Unit |
| APPLIED MUSCA238 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 208. [HB, SE] | INSTRUMENT:BASS 1 Credit/Unit | APPLIED MUSCA273 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private cello lessons. Continuation of MUSCA 233. [HB, SE] | INSTRUMENT:CELLO 1 Credit/Unit |
| APPLIED MUSCA239 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private horn lessons. Continuation of MUSCA 209. [HB, SE] | INSTRUMENT:HORN 1 Credit/Unit | APPLIED MUSCA274 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private viola lessons. Continuation of MUSCA 234. [HB, SE] | INSTRUMENT:VIOLA 1 Credit/Unit |
| APPLIED MUSCA240 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private bassoon lessons. Continuation of MUSCA 210. [HB, SE] | INSTRUMENT:BASSOON 1 Credit/Unit | APPLIED MUSCA275 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trumpet lessons. Continuation of MUSCA 235. [HB, SE] | INSTRUMENT:TRUMPET 1 Credit/Unit |
| APPLIED MUSCA241 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private trombone lessons. Continuation of MUSCA 211. [HB, SE] | INSTRUMENT:TROMBONE 1 Credit/Unit | APPLIED MUSCA276 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private guitar lessons. Continuation of MUSCA 236. [HB, SE] | INSTRUMENT:GUITAR 1 Credit/Unit |
| APPLIED MUSCA242 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private sax lessons. Continuation of MUSCA 212. [HB, SE] | INSTRUMENT:SAX 1 Credit/Unit | APPLIED MUSCA277 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 237. [HB, SE] | INSTRUMENT:CLARINET 1 Credit/Unit |
| APPLIED MUSCA243 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private percussion lessons. Continuation of MUSCA 213. [HB, SE] | INSTRUMENT:PERCUSSION 1 Credit/Unit | APPLIED MUSCA278 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 238. [HB, SE] | INSTRUMENT:BASS 1 Credit/Unit |
| APPLIED MUSCA244 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private oboe lessons. Continuation of MUSCA 214. [HB, SE] | INSTRUMENT:OBOE 1 Credit/Unit | APPLIED MUSCA279 11 hours of lecture Prerequisite: Written consent of Instructional Unit required. Private horn lessons. Continuation of MUSCA 239. [HB, SE] | INSTRUMENT:HORN 1 Credit/Unit |

APPLIED **INSTRUMENT:BASSOON**
MUSCA280 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private bassoon lessons. Continuation of MUSCA 240. [HB, SE]

APPLIED **INSTRUMENT:TROMBONE**
MUSCA281 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trombone lessons. Continuation of MUSCA 241. [HB, SE]

APPLIED **INSTRUMENT:SAX**
MUSCA282 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private sax lessons. Continuation of MUSCA 242. [HB, SE]

APPLIED **INSTRUMENT:PERCUSSION**
MUSCA283 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private percussion lessons. Continuation of MUSCA 243. [HB, SE]

APPLIED **INSTRUMENT:OBOE**
MUSCA284 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private oboe lessons. Continuation of MUSCA 244. [HB, SE]

APPLIED **INSTRUMENT:EUPHONIUM**
MUSCA285 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private euphonium lessons. Continuation of MUSCA 245. [HB, SE]

APPLIED **INSTRUMENT:TUBA**
MUSCA286 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private tuba lessons. Continuation of MUSCA 246. [HB, SE]

NETWORK TECHNOLOGY (NTEC)

IP SUBNETTING

NTEC 103

3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in CAP 042 or eligible for MATH 089 or MATH 092.

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 hierarchical addressing schemes. No prior computer or network knowledge or experience is required. [GE]

INFORMATION SECURITY FUNDAMENTALS

NTEC 125

3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in NTEC 103, or consent of Instructional Unit.

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.

WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS

NTEC 132

3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better or concurrent enrollment in NTEC 103 or consent of Instructional Unit.

Help students prepare for the Microsoft Technology Associate (MTA) Exam by building an understanding of server installation, server roles, active directory, storage, server performance management, and server maintenance. [GE]

CLOUD COMPUTING FUNDAMENTALS

NTEC 142

3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in NTEC 103, or consent of Instructional Unit.

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. [GE]

LINUX ESSENTIALS

NTEC 151

6 Credits/Units

44 hours of lecture / 44 hours of lab

Prerequisite: Eligibility for MATH 030 or MATH 092, or consent of Instructional Unit.

Explores the basics of Linux, the world's most popular operating system. Includes system administration skills (using the command line, how to configure a computer running Linux, and basic networking), basic open source concepts. This course may help students prepare for attaining the LPI (Linux Professional Institute) Linux Essentials industry certification. [GE]

COOPERATIVE WORK EXPERIENCE

NTEC 199

6 Credits/Units

198 hours of clinical

Prerequisite: Completion of or concurrent enrollment in HDEV 195 and 198 or 200 and consent of Instructional Unit.

Supervised work experience in an approved job. Completion of specific learning objectives and employee evaluation. [GE] [PNP]

DEPLOYING LINUX SERVER SERVICES

NTEC 220

6 Credits/Units

44 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in NTEC 151, or consent of Instructional Unit.

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. [GE]

CISCO CCNA 1: INTRODUCTION TO NETWORKS

NTEC 221

6 Credits/Units

44 hours of lecture / 44 hours of lab

Prerequisite: Completion of NTEC 103 with a grade of "C" or better, or concurrent enrollment in NTEC 103, or consent of Instructional Unit.

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. [GE]

CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS

NTEC 222

6 Credits/Units

44 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in NTEC 221, or consent of Instructional Unit.

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. [GE]

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| CISCO NTEC 223 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 222, or consent of Instructional Unit. 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. [GE] | CCNA 3: | SCALING 6 Credits/Units | NETWORKS 6 Credits/Units | MICROSOFT NTEC 234 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 132 and NTEC 103, or consent of Instructional Unit. Covers installing and configuring Windows Server. 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. [GE] | SERVER 6 Credits/Units | ADMINISTRATOR 6 Credits/Units | 1 |
| CISCO NTEC 224 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 222, or consent of Instructional Unit. 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. [GE] | CCNA 4: | CONNECTING 6 Credits/Units | NETWORKS 6 Credits/Units | MICROSOFT NTEC 235 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in both NTEC 132 and NTEC 103, or consent of Instructional Unit. Covers the following: administration of Windows Server; Implementing a Group Policy infrastructure; 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. [GE] | SERVER 6 Credits/Units | ADMINISTRATOR 6 Credits/Units | 2 |
| CISCO NTEC 225 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 222, or consent of Instructional Unit. 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. [GE] | CCNA 3: | | SECURITY 6 Credits/Units | MICROSOFT NTEC 236 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 132 and NTEC 103, or consent of Instructional Unit. Covers configuration of advanced Windows Server 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. [GE] | SERVER 6 Credits/Units | ADMINISTRATOR 6 Credits/Units | 3 |
| CISCO NTEC 226 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 222, or consent of Instructional Unit. 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. [GE] | CCNA 3: | | VOICE 6 Credits/Units | MICROSOFT NTEC 238 22 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better or concurrent enrollment in NTEC 103 and NTEC 132, or consent of Instructional Unit. Covers the skills necessary for installing and configuring Microsoft's SQL Server along with setting up a database and associated objects. Course focuses upon the role of Database Administrator in managing procedures to ensure that data is consistently, reliably available, and recoverable. Students will manage SQL Server instances and databases. Also includes optimizing and troubleshooting SQL Server, implementing basic security and data integrity measures, and granting data access privileges to individual users. [GE] | SQL 4 Credits/Units | SERVER 4 Credits/Units | ADMINISTRATION 4 Credits/Units |

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| MICROSOFT NTEC 239 | OFFICE | 365 | ADMINISTRATION 3 Credits/Units | CAPSTONE NTEC 297 | EXPERIENCE: | NETWORK | TECHNOLOGIES 3 Credits/Units |
| 22 hours of lecture / 22 hours of lab Prerequisite: A grade of "C" or better or concurrent enrollment in NTEC 103 and NTEC 132, or consent of Instructional Unit. Microsoft Office 365 is powered by the cloud and designed to help meet reliability, security, and user productivity needs. Students will plan, deploy, and operate Microsoft Office 365 including its identities, dependencies, requirements, and supporting technologies. Students will configure administrative roles, manage user and group accounts, implement security and monitor Office 365 availability. [GE] | | | | 11 hours of lecture / 22 hours of lab 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. This course will normally be taken during the final term 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. | | | |
| DATACENTER NTEC 242 | VIRTUALIZATION | | TECHNOLOGY 6 Credits/Units | | | | |
| 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 142, or consent of Instructional Unit. 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. [GE] | | | | | | | |
| LINUX NTEC 252 | ADMINISTRATION | | 1 6 Credits/Units | | | | |
| 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 151 or consent of Instructional Unit. Builds on the skills learned in NTEC 151 - Linux Essentials course. Covers the following: system architecture, Linux installation and package management, GNU and UNIX commands, devices, Linux file systems, and file system hierarchy standards. This course may help students prepare for taking the COMPTIA LINUX+/LPI (Linux Professional Institute) LPIC-1 industry certification (Exam 101). [GE] | | | | | | | |
| LINUX NTEC 253 | ADMINISTRATION | | 2 6 Credits/Units | | | | |
| 44 hours of lecture / 44 hours of lab Prerequisite: A grade of "C" or better in NTEC 252 or consent of Instructional Unit. Course description revision: Builds on the skills learned in the NTEC 151 and NTEC 252. Covers the following: shells, scripting and data management, interfaces and desktops, administrative tasks, essential system services, networking fundamentals, and security. This course may help students prepare for taking the COMPTIA LINUX+/LPI (Linux Professional Institute) LPIC-1 industry certification (Exam 102). [GE] | | | | | | | |
| SELECTED NTEC 280 | | | TOPICS 6 Credits/Units | | | | |
| 66 hours of lecture Prerequisite: Consent of Instructional Unit. Topics vary. May be repeated for credit. [GE] | | | | | | | |
| SPECIAL NTEC 290 | | | PROJECTS 6 Credits/Units | | | | |
| Prerequisite: Consent of Instructional Unit. Opportunity to plan, organize, and complete special projects approved by the department. [GE] | | | | | | | |
| | | | | CAPSTONE NTEC 298 | EXPERIENCE: | MICROSOFT | TECHNOLOGIES 3 Credits/Units |
| | | | | 11 hours of lecture / 22 hours of lab Prerequisite: Microsoft MCP Server 2012 or 2016 certification required, completion of all core coursework related to degree, and consent of Instructional Unit. This course will normally be taken during the final term 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. | | | |
| | | | | CAPSTONE NTEC 299 | EXPERIENCE: | CISCO | TECHNOLOGIES 3 Credits/Units |
| | | | | 11 hours of lecture / 44 hours of lab Prerequisite: Cisco CCENT certification required, completion of all required core coursework related to degree and consent of Instructional Unit. This course will normally be taken during the final term 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. [GE] | | | |

NURSING (NURS)

FOUNDATIONS OF NURSING CONCEPTS

NURS 110

2 Credits/Units

22 hours of lecture

Concurrent enrollment in NURS 111, 113, 114, and 115 and ENGL 112.

Prerequisite: Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of "C" or better.

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. These courses are linked; failure in one course, with a grade of "C" or lower or "U", requires repeat of all concurrent courses. [GE]

FOUNDATIONS OF CLINICAL NURSING

NURS 111

3 Credits/Units

66 hours of lab

Concurrent enrollment is required in NURS 110, 113, 114, 115 and ENGL 112.

Prerequisite: Consent of Instructional Unit, completion of MATH 146 and PSYC with a grade of "C" or better.

Introduction to nursing practice in the community setting with emphasis on direct patient care of the older adult. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

LIFESPAN ASSESSMENT CONCEPTS

NURS 113

2 Credits/Units

22 hours of lecture

Concurrent enrollment in NURS 110, 111, 114, 115 and ENGL 112.

Prerequisite: Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of "C" or better.

Introduction to health assessment and physical examination throughout the lifespan, and an introduction to nursing skills. These courses are linked; failure in one course, with a grade of "C" or lower or "U", requires repeat of all concurrent courses. [GE]

NURSING SKILLS APPLICATION I

NURS 114

1 Credit/Unit

22 hours of lab

Concurrent enrollment in NURS 110, 111, 113, 115 and ENGL 112.

Prerequisite: Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of "C" or better.

Practice and nursing skill achievement on NURS 113 competencies. These courses are linked; failure in one course, with a grade of "C" or lower or "U", requires repeat of all concurrent courses. [GE]

NURSING SKILLS LAB I

NURS 115

2 Credits/Units

44 hours of lab

Concurrent enrollment in NURS 110, 111, 113, 114 and ENGL 112.

Prerequisite: Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of "C" or better.

Supervised skills practice and competency achievement in the nursing skills lab. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

FAMILY-CENTERED

NURS 122

22 hours of lecture

Concurrent enrollment in NURS 123, 127, 128, PSYC 122 and 124.

Prerequisite: A grade of "C" or better in NURS 110, 113, 114, 115 and ENGL 112 and a "S" grade in NURS 111 or consent of Instructional Unit.

Theory and the nursing process related to the care of healthy children and their families. Physiologic and psychological adaptation during the childbearing and childrearing years, emphasis on the nurse's role in health promotion and education in the care of culturally diverse families in the community. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

FAMILY-CENTERED CLINICAL NURSING

NURS 123

4 Credits/Units

88 hours of lab

Concurrent enrollment in NURS 122, 127, 128, PSYC 122 and 124.

Prerequisite: A grade of "C" or better in NURS 110, 113, 114, 115 and ENGL 112 and an "S" in NURS 111 or consent of Instructional Unit.

Application of theoretical, assessment, and practice concepts for nursing care of the family prenatally through the child years. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

NURSING SKILLS APPLICATION II

NURS 127

1 Credit/Unit

22 hours of lab

Concurrent enrollment in NURS 122, 123, 128, PSYC 122 and 124.

Prerequisite: A grade of "C" or better in NURS 110, 113, 114, 115 and ENGL 112 and an "S" in NURS 111 or consent of Instructional Unit.

Practice and nursing skill achievement on NURS 126 competencies. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

NURSING SKILLS LAB II

NURS 128

2 Credits/Units

44 hours of lab

Concurrent enrollment in NURS 122, 123, 127, PSYC 122 and 124.

Prerequisite: A grade of "C" or better in NURS 110, 113, 114, 115 and ENGL 112 and an "S" in NURS 111 or consent of Instructional Unit.

Practice and nursing skill achievement of NURS 127 competencies. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

MEDICAL SURGICAL NURSING CONCEPTS 1

NURS 135

3 Credits/Units

33 hours of lecture

Concurrent enrollment in NURS 136, 137, 138 and NUTR 139.

Prerequisites: A grade of "C" or better in NURS 122, 127, 128, PSYC 122 and 124 and an "S" in NURS 123 or consent of Instructional Unit.

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 peri-operative setting. All topics address patients throughout the lifespan, and include obstetric patients in a medical-surgical setting. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

NURSING

2 Credits/Units

| | | | | | | | |
|---|--------------------|------------------------------------|-----------------------------------|--|-----------------|------------------------------------|-----------------------------------|
| MEDICAL-SURGICAL NURS 136 110 hours of lab Concurrent enrollment in NURS 135, 137, 138 and NUTR 139. Prerequisite: A grade of "C" or better in NURS 122, 127, 128, PSYC 122 and 124 and an "S" in NURS 123 or consent of Instructional Unit. Introductory medical/surgical concepts applied to the clinical nursing management of the patient in the acute care and community setting. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE] | CLINICAL | NURSING 5 Credits/Units | I | MEDICAL/SURGICAL NURS 242 176 hours of lab Concurrent enrollment in NURS 241 and NUTR 240. Prerequisite: A grade of "C" or better in NURS 135, 137, 138 and NUTR 139 and an "S" in NURS 136 or consent of Instructional Unit. Application of advanced medical-surgical concepts with emphasis on the management of the acutely ill client. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE] | CLINICAL | NURSING 8 Credits/Units | II |
| NURSING NURS 137 22 hours of lab Concurrent enrollment in NURS 135, 136, 138 and NUTR 139. Prerequisite: A grade of "C" or better in NURS 122, 127, 128, PSYC 122 and 124 and an "C" in NURS 123 or consent of Instructional Unit. Instruction and practice of nursing skills related to the care of the medical-surgical patient. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE] | SKILLS | APPLICATION | III | CLINICAL NURS 250 110 hours of lab Prerequisite: Recommendation by Nursing Readmission Committee and/or Associate Dean of Health Sciences. Simulation and clinical practice experiences are designed to support individuals who withdraw from the nursing program in developing safe, effective clinical practice and facilitate student readiness to re-enter the nursing program. Focuses on enhancing critical thinking, clinical judgement, organization and prioritization and application of knowledge in clinical scenarios. [GE] | PRACTICE | SUPPORT 5 Credits/Units | |
| NURSING NURS 138 44 hours of lab Concurrent enrollment in NURS 135, 136, 137 and NUTR 139. Prerequisite: A grade of "C" or better in NURS 122, 127, 128, PSYC 122 and 124 and an "S" in NURS 123 or consent of Instructional Unit. Practice and nursing skill achievement of NURS 137 competencies. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE] | SKILLS | LAB | III | MEDICAL-SURGICAL NURS 251 22 hours of lecture Concurrent enrollment in NURS 252 and PSYC 253. Prerequisite: A grade of "C" or better in NURS 241 and NUTR 240 and an "S" in NURS 242 or consent of Instructional Unit. 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. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE] | NURSING | CONCEPTS 2 Credits/Units | III |
| NURSING NURS 150 11 hours of lecture / 22 hours of lab Prerequisite: Recommendation by Nursing Readmission Committee and/or Associate Dean of Health Sciences. Designed to support students who withdraw from the nursing program for academic or non-academic reasons by assisting with remediation. The schedule is comprised of classroom, skills lab, and individual 1:1 sessions with the Student Success and Retention Faculty or other designated Nursing Faculty. Provides students with tools, skills, interventions, and resources to facilitate student readiness to re-enter the nursing program. [GE] | DEVELOPMENT | AND | SUPPORT 2 Credits/Units | | | | |
| MEDICAL-SURGICAL NURS 241 33 hours of lecture Concurrent enrollment in NURS 242 and NUTR 240. Prerequisite: A grade of "C" or better in NURS 135, 137, 138 and NUTR 139 and an "S" in NURS 136 or consent of Instructional Unit. 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. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE] | NURSING | CONCEPTS 3 Credits/Units | II | ADVANCED NURS 252 176 hours of lab Concurrent enrollment in NURS 251 and PSYC 253. Prerequisite: A grade of "C" or better in NURS 241 and NUTR 240 and an "S" in NURS 242 or consent of Instructional Unit. 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. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE] | HOLISTIC | CLINICAL | NURSING 8 Credits/Units |

PROFESSIONAL LEADERSHIP TRANSITION TO PRACTICE
 NURS 261 1 Credit/Unit

11 hours of lecture

Concurrent enrollment in NURS 262, 263, 264 and ENGL 273.

Prerequisite: A grade of "C" or better in NURS 251 and PSYC 253 and an "S" in NURS 252, or consent of Instructional Unit.

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. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

PROFESSIONAL LEADERSHIP SENIOR PRACTICUM
 NURS 262 6 Credits/Units

132 hours of lab

Concurrent enrollment in NURS 261, 263, 264 and ENGL 273.

Prerequisite: A grade of "C" or better in NURS 251 and PSYC 253 and an "S" in NURS 252, or consent of Instructional Unit.

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. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

PROFESSIONAL ROLE IN COMMUNITY SERVICE
 NURS 263 1 Credit/Unit

22 hours of lab

Concurrent enrollment in NURS 261, 262, 264 and ENGL 273.

Prerequisite: A grade of "C" or better in NURS 251 and PSYC 253 and an "S" in NURS 252, or consent of Instructional Unit.

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. These courses are linked; failure in one, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

CAPSTONE NCLEX PREPARATION
 NURS 264 1 Credit/Unit

11 hours of lecture

Concurrent enrollment in NURS 261, 262, 263 and ENGL 273.

Prerequisite: A grade of "C" or better in NURS 251 and PSYC 253 and an "S" in NURS 252, or consent of Instructional Unit.

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. These courses are linked; failure in one course, with a grade of "C-" or lower or "U", requires repeat of all concurrent courses. [GE]

SPECIAL PROJECTS
 NURS 290 15 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]

NUTRITION (NUTR)

NUTRITION

NUTR&101

3 Credits/Units

33 hours of lecture

Prerequisite: A grade of "C" or better in CHEM 121 or higher.

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. [NS]

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|------------------|-----------|-------------------|---------------|
| NUTRITION | IN | HEALTHCARE | II |
| NUTR 139 | | | 1 Credit/Unit |

11 hours of lecture

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.

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.

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| NUTRITION | IN | HEALTHCARE | III |
| NUTR 240 | | | 1 Credit/Unit |

11 hours of lecture

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.

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. [NS]

PHARMACY TECHNICIAN (PHAR)

OVERVIEW OF PHARMACY PHAR 100 2 Credits/Units

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/Unit

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/Units

44 hours of lecture
Prerequisite: A grade of "C" or better in BMED 110 and consent of Instructional Unit.
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. [GE]

PHARMACY CALCULATIONS PHAR 110 3 Credits/Units

33 hours of lecture
Prerequisite: Consent of HEOC advisor.
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. [GE]

PHARMACOLOGY I PHAR 112 5 Credits/Units

55 hours of lecture
Prerequisite: A grade of "C" or better in PHAR 105.
First of 2-term sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy, with focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antibiotics, analgesics, autonomic system, cardiovascular and respiratory drugs. [GE]

PHARMACY PRACTICE AND TECHNOLOGY PHAR 114 4 Credits/Units

33 hours of lecture / 22 hours of lab
Prerequisite: Consent of HEOC advisor.
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. [GE]

PHARMACY EXTERNSHIP I PHAR 118 4 Credits/Units

132 hours of clinical
Concurrent enrollment in PHAR 119 required.
Prerequisite: A grade of "C" or better in PHAR 105 and consent of Instructional Unit.

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. [GE]

PHARMACY EXTERNSHIP SEMINAR I PHAR 119 2 Credits/Units

22 hours of lecture
Concurrent enrollment in PHAR 118 and written consent of Instructional Unit.
First of 2-term 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. [GE] [PNP]

PHARMACOLOGY II PHAR 122 5 Credits/Units

55 hours of lecture
Prerequisite: Completion of PHAR 112 and written consent of the Instructional Unit required.
Second of 2-term 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. [GE]

PHARMACY LAW PHAR 123 2 Credits/Units

22 hours of lecture
Prerequisite: written consent of Instructional Unit required.
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. [GE]

PHARMACY COMPOUNDING PHAR 127 4 Credits/Units

33 hours of lecture
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/Units

132 hours of clinical
Concurrent enrollment in PHAR 129 required.
Prerequisite: Completion of PHAR 105 and written consent of Instructional Unit required.
Continued practical, on-the-job instruction in the knowledge base required of a pharmacy (technician) in the work force. [GE]

PHILOSOPHY (PHIL)

INTRODUCTION TO PHILOSOPHY PHIL&101 5 Credits/Units

55 hours of lecture

Some of the great themes and major figures of Western philosophy. [HA, SE]

CRITICAL THINKING PHIL&115 5 Credits/Units

55 hours of lecture

An informal, non-symbolic introduction to logic and critical thinking emphasizing real-life examples, natural language applications, and the informal logical fallacies. [SE]

TRADITIONAL LOGIC PHIL&117 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or 095 or 096, or eligibility for college level math, or equivalent placement demonstrated is required.

Focus on sentence logic with proofs and Aristotelian logic with Venn Diagrams. Includes formulation of propositions, logical inference, syllogisms (categorical, hypothetical, etc.), and fallacies. [SE]

SYMBOLIC LOGIC PHIL&120 5 Credits/Units

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 093 or 095 or 096, or eligibility for college level math, or equivalent placement demonstrated is required.

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. Cannot receive credit for both PHIL 106 and 120. [HA,Q,SE]

INTRODUCTION TO ANCIENT AND MEDIEVAL PHILOSOPHY PHIL 215 5 Credits/Units

55 hours of lecture

Introduction to ancient Western philosophy from its Greek roots, through its development in Socrates, Plato, and Aristotle, and to its adaptations into Christian thought, with special emphasis of Augustine and Aquinas. [HA, SE]

INTRODUCTION TO EARLY MODERN PHILOSOPHY PHIL 216 5 Credits/Units

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/Units

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/Units

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/Units

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 3 Credits/Units

33 hours of lecture

Varying topics in philosophy, as listed in the term class schedule. May be repeated for credit. [HA, SE]

SPECIAL PROJECTS PHIL 290 5 Credits/Units

Prerequisite: Completion of two philosophy courses and consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [HA, GE]

ETHICS IN MANAGEMENT PHIL 420 5 Credits/Units

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 (PHLE)

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|-------------------|------------------|-----------------|
| PHLEBOTOMY | EDUCATION | W/LAB |
| PHLE 115 | | 3 Credits/Units |

22 hours of lecture / 22 hours of lab

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.

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. [GE]

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| BASIC | LABORATORY | FOR | THE | PHLEBOTOMIST |
| PHLE 116 | | | | 3 Credits/Units |

11 hours of lecture / 44 hours of lab

Learn to perform basic laboratory procedures that are required during specimen processing and testing in a laboratory setting.

Procedures include capillary microcollection, pipetting, creating aliquots, centrifugation, implementing infection control and quality control practices, and performing CLIA-waived laboratory tests. 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. [GE]

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| PHLEBOTOMY | CLINICAL | EXPERIENCE |
| PHLE 197 | | 5 Credits/Units |

165 hours of clinical

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.

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. [GE]

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| PHLEBOTOMY | CLINICAL | SEMINAR |
| PHLE 198 | | 1 Credit/Unit |

11 hours of lecture

Concurrent enrollment in PHLE 197 is required.

Prerequisite: Satisfactory completion of PHLE 115 and PHLE 116 and all course requirements or consent of the Instructional Unit.

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. Attendance at all seminar sessions is mandatory in order to successfully complete the course. Cannot receive credit for both PHLE 198 and HEOC 198. [GE]

PHYSICAL EDUCATION (PE)

CARDIO

PE 100

22 hours of lab

Basic group exercise to music, primarily targeting cardiovascular conditioning. [PE, SE]

INTRODUCTION

PE 101

22 hours of lab

Develop fitness through running, emphasizing various training methods, individual program development, and health benefits.

FITNESS

PE 102

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

PE 103

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

PE 104

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,

PE 107

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

PE 108

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

PE 111

22 hours of lab

Utilizing functional movement patterns to improve core stabilization, posture, and balance. [PE, SE]

STRENGTH

PE 112

22 hours of lab

Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [PE, SE]

CONDITIONING

1 Credit/Unit

RUNNING

1 Credit/Unit

WALKING

2 Credits/Units

AEROBICS

1 Credit/Unit

FITNESS

1 Credit/Unit

QUICKNESS

1 Credit/Unit

PROGRAM

2 Credits/Units

FITNESS

1 Credit/Unit

STRETCH

1 Credit/Unit

TOTAL

PE 113

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

PE 115

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

PE 116

22 hours of lab

Introduction to the fundamental skills necessary to implement a physical activity program in a fitness center setting. Students develop and implement an exercise program appropriate to their fitness level and individual needs using a variety of cardiovascular and resistance machines. [PE, SE]

WEIGHT

PE 117

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

PE 118

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.

CARDIO

PE 120

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

22 hours of lab

Introduction to hatha yoga (physical yoga) with an emphasis on postures, breathing and body-mind centering. [PE, SE]

HEALTHY

PE 123

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]

BODY

TRAINING-GENERAL

CONDITIONING

2 Credits/Units

1 Credit/Unit

BASICS

1 Credit/Unit

LIFTING

2 Credits/Units

TRAINING

2 Credits/Units

KICKBOXING-BEGINNING

1 Credit/Unit

1 Credit/Unit

HEART-BEGINNING

1 Credit/Unit

PILATES-BEGINNING

PE 124 1 Credit/Unit
 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

PE 125 1 Credit/Unit
 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

PE 126 1 Credit/Unit
 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

PE 129 2 Credits/Units
 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]

BASKETBALL

PE 140 1 Credit/Unit
 22 hours of lab
 Ball handling, shooting, passing, offensive and defensive techniques, rules, strategy and competitive play. [PE, SE]

BOWLING

PE 143 1 Credit/Unit
 22 hours of lab
 Techniques, styles of play, rules of courtesy, scoring and competitive games. [PE, SE]

FENCING-FOIL

PE 147 1 Credit/Unit
 22 hours of lab
 Movement of fencing plus defense, offense, rules of bouting, officiating, and competition. [PE, SE]

GOLF

PE 148 1 Credit/Unit
 22 hours of lab
 Fundamentals and practice of golf. Focuses on full-swing fundamentals, chipping, pitching, putting, golf strategies, and rules of the game. [PE, SE]

SOCCER

PE 150 1 Credit/Unit
 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]

SOFTBALL

PE 153 1 Credit/Unit
 22 hours of lab
 Skills, rules and team play. [PE]

TENNIS

PE 155 1 Credit/Unit
 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/Unit
 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

PE 163 1 Credit/Unit
 22 hours of lab
 Ultimate Frisbee fundamentals: individual skill development, rules, game play, and strategies. [PE, SE]

AQUA

PE 171 1 Credit/Unit
 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/Units
 11 hours of lecture / 22 hours of lab
Prerequisite: Swimming ability.
 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. [PE, SE]

BEGINNING

PE 175 1 Credit/Unit
 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/Unit
 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

PE 179 1 Credit/Unit
 22 hours of lab
Prerequisite: Ability to swim comfortably in the deep end of pool.
 Emphasizes swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [PE, SE]

HIKING

PE 182 1 Credit/Unit
 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]

CLIMBING

CONDITIONING

CAMP-BEGINNING

FRISBEE-BEGINNING

EXERCISE

SWIMMING

CONDITIONING-BEGINNING

ROWING-BEGINNING

PE 183 1 Credit/Unit
22 hours of lab

Prerequisite: Must pass swimming test prior to first class. 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. See Course Information Sheet outside OSC 206 for more information. [PE, SE]

CARDIO

PE 200 1 Credit/Unit
22 hours of lab

Prerequisite: PE 100. Intermediate group exercise to music, primarily targeting cardiovascular conditioning. [PE, SE]

FITNESS

PE 202 2 Credits/Units
44 hours of lab

Prerequisite: PE 102. Intermediate fitness walking with emphasis on walking programs and technique. [PE, SE]

BENCH

STEP

AEROBICS-INTERMEDIATE

PE 203 1 Credit/Unit
22 hours of lab

Prerequisite: PE 103. Intermediate high-intensity/low impact exercise program using a bench step promoting overall body strength and cardiovascular fitness. [PE, SE]

CIRCUIT

FITNESS

-

INTERMEDIATE

PE 204 1 Credit/Unit
22 hours of lab

Prerequisite: PE 104. 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] [PNP]

SPEED,

AGILITY,

AND

QUICKNESS

PE 207 1 Credit/Unit
22 hours of lab

Prerequisite: PE 107. Additional drills to further advance personal ability in running, quickness, speed. Includes advanced plyometric training techniques. [PE, SE]

INDEPENDENT

FITNESS

-

INTERMEDIATE

PE 208 2 Credits/Units
44 hours of lab

Prerequisite: PE 108. 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. [PE, SE]

FUNCTIONAL

PE 211 1 Credit/Unit
22 hours of lab

Prerequisite: PE 111. Continuation of PE 111. Utilizing functional movement patterns to improve core stabilization, posture, and balance. More advanced techniques introduced. [PE, SE]

STRENGTH

AND

STRETCH

PE 212 1 Credit/Unit
22 hours of lab

Prerequisite: PE 112. Continuation of PE 112. Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [PE, SE]

TOTAL

BODY

CONDITIONING-INT

PE 213 2 Credits/Units
44 hours of lab

Prerequisite: PE 113. Continuation of individualized conditioning program for developing the various components of fitness. Additional focus on learning principles of fitness to create personalized workouts. [PE, SE]

TRIATHLON

PE 214 2 Credits/Units
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/Unit
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/Unit
22 hours of lab

Introduction to the fundamental skills necessary to implement a physical activity program in a fitness center setting. Students develop and implement an exercise program appropriate to their fitness level and individual needs using a variety of cardiovascular and resistance machines. [PE, SE]

WEIGHT

TRAINING-POWER

LIFTING

II

PE 217 2 Credits/Units
44 hours of lab

Prerequisite: PE 117. 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. [PE, SE]

CARDIO

KICKBOXING-INT

PE 220 1 Credit/Unit
22 hours of lab

Prerequisite: PE 120. 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. [PE, SE]

YOGA-INTERMEDIATE

PE 221 1 Credit/Unit
22 hours of lab

Prerequisite: PE 121. A continuation of Hatha yoga technique. Students will practice more advanced postures and a deeper exploration of body-mind centering. [PE, SE]

HEALTHY

PE 223

22 hours of lab

Prerequisite: PE 123.

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. [GE, PE, SE]

PILATES-INTERMEDIATE

PE 224

22 hours of lab

Prerequisite: PE 124.

Continuation of Pilates method of conditioning needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. [PE, SE]

ROCK

PE 225

22 hours of lab

Prerequisite: Completion of PE 125 or consent of Instructional Unit.

Learn advanced rock climbing methods. Bouldering technique and Lead Climbing skills will be taught, taking the student beyond the skills learned in PE 125.

BOOT

PE 229

44 hours of lab

Prerequisite: PE 129.

Continuation of physical fitness for military purposes; emphasis on basic conditioning, discipline, and leadership. This course is open to all students. [PE, SE]

BASKETBALL-INTERMEDIATE

PE 240

22 hours of lab

Prerequisite: PE 140.

Continuation of skills, practice, and competitive play. [PE, SE]

BOWLING-INTERMEDIATE

PE 243

22 hours of lab

Prerequisite: PE 143.

Advanced instruction in all phases of bowling including league play and competition. [PE, SE]

FENCING-FOIL,SABRE/EPEE

PE 246

22 hours of lab

Movements of all three weapons of fencing. Emphasizes defense, offense, rules, officiating and competition. [PE, SE]

FENCING-FOIL

PE 247

22 hours of lab

Prerequisite: PE 147.

Skill refinement and advanced technique for experienced foil fencers. [PE, SE]

GOLF-INTERMEDIATE

PE 248

22 hours of lab

More advanced instruction on golf swing, short game, and golf strategies. [PE, SE]

HEART-INTERMEDIATE

1 Credit/Unit

SOCCER-INTERMEDIATE

PE 250

22 hours of lab

Prerequisite: PE 150.

Focus on learning and applying more advanced individual skills utilizing small and large groups to demonstrate more advanced team tactics. [PE, SE]

TENNIS-INTERMEDIATE

PE 255

22 hours of lab

Prerequisite: PE 155.

Refinement of tennis skills, advanced game strategies and strokes. Observe and assist 100 level students. [PE, SE]

VOLLEYBALL-INTERMEDIATE

PE 258

22 hours of lab

Prerequisite: PE 158.

Further development of individual skills, team offenses and defenses learned in the beginning level PE 158. [PE, SE]

VOLLEYBALL-POWER

PE 260

22 hours of lab

Prerequisite: PE 158 and PE 258 or competitive experience.

Higher level of volleyball for the advanced player utilizing advanced skills and drills. Emphasis will be placed on advanced offensive and defensive strategies. [PE, SE]

ULTIMATE

PE 263

22 hours of lab

Prerequisite: PE 163.

Continuation of individual skill development, rules, game play, and strategies for the intermediate level ultimate Frisbee player. [PE, SE]

AQUA

PE 271

22 hours of lab

Prerequisite: PE 171.

Continuation of water exercise conditioning through stretching, flexibility, abdominal and back strength. [PE, SE]

SWIMMING-STROKE

PE 275

22 hours of lab

Prerequisite: PE 175.

Review Red Cross swimming strokes, water survival and safety skills. For the swimmer who is comfortable in deep water and can swim 25 yards.

SWIM

PE 279

22 hours of lab

Prerequisite: PE 179.

Continued practice of swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [PE, SE, GE]

SELECTED

PE 280

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 term class schedules. [PE, SE]

CLIMBING-INTERMEDIATE

1 Credit/Unit

CAMP-INTERMEDIATE

2 Credits/Units

FRISBEE-INTERMEDIATE

1 Credit/Unit

EXERCISE-INTERMEDIATE

1 Credit/Unit

IMPROVEMENT

1 Credit/Unit

CONDITIONING-INTERMEDIATE

1 Credit/Unit

TOPICS

5 Credits/Units

HIKING-INTERMEDIATE

PE 282 1 Credit/Unit

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/Unit

22 hours of lab

Prerequisite: A grade of "S" in PE 183.

Further development of rowing technique, tactics and fitness development. [PE, SE]

SPECIAL

PE 290

PROJECTS

5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

INTRODUCTION

TO

SPORTS

OFFICIATING

PE 295

2 Credits/Units

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.

PHYSICAL EDUCATION DANCE (PEDNC)

BALLET-BEGINNING

PEDNC130 1 Credit/Unit
22 hours of lab
Beginning ballet technique including barre and centre work. [PE, SE]

BALLROOM **DANCE:** **MIXED**
PEDNC131 3 Credits/Units

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/Unit

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/Unit

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/Unit

22 hours of lab
Fundamentals and techniques of modern dance and rhythmic self-expression. [PE, SE]

SWING **DANCE-BEGINNING**
PEDNC135 1 Credit/Unit

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/Unit

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/Unit

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 Credit/Unit

22 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.

HULA
PEDNC141 1 Credit/Unit
22 hours of lab
Focus on Hawaiian traditional dance forms.

AFRICAN **DANCE**
PEDNC142 1 Credit/Unit

22 hours of lab
Introduction to African dance, which focuses on drumming, rhythm, and music predominantly of West Africa.

BOLLYWOOD
PEDNC143 1 Credit/Unit

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.

IRISH **DANCE**
PEDNC144 1 Credit/Unit

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/Unit

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]

BALLET-INTERMEDIATE
PEDNC230 1 Credit/Unit

22 hours of lab
Prerequisite: PEDNC 130.
Stronger techniques with more advanced steps and combinations including toe. [PE, SE]

BALLROOM **DANCE-INTERMEDIATE:** **MIXED**
PEDNC231 3 Credits/Units

66 hours of lab
Prerequisite: PEDNC 131.
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-INTERMEDIATE:** **SMOOTH**
PEDNC232 1 Credit/Unit

22 hours of lab
Prerequisite: PEDNC 131 or PEDNC 132.
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Smooth style dances include waltz, tango, fox trot, quick step and Viennese waltz. [PE, SE]

BALLROOM **DANCE-INTERMEDIATE:** **LATIN**
PEDNC233 1 Credit/Unit

22 hours of lab
Prerequisite: PEDNC 131 or PEDNC 132.
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin dance sections will include: mambo, cha cha, rhumba, samba, and salsa. [PE, SE]

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|--|--|---|--|
| CONTEMPORARY PEDNC234 22 hours of lab Prerequisite: PEDNC 134. Intermediate techniques with opportunities for individual and group composition. | DANCE-INTERMEDIATE 1 Credit/Unit | BELLY PEDNC245 22 hours of lab Prerequisite: PEDNC 145. Continuation of the skills learned in PEDNC 145, plus new variations and intermediate study of Middle Eastern Dance techniques. | DANCE-INTERMEDIATE 1 Credit/Unit |
| SWING PEDNC235 22 hours of lab Prerequisite: PEDNC 135. Includes partnering techniques such as leverage, posture, hovering, contrary body movement, rise and fall, and sway, and styling such as Cuban motion for Latin, spring action for East Coast Swing and heel leads for smooth. Introduction to opposite role as lead/follow. | DANCE-INTERMEDIATE 1 Credit/Unit | | |
| MODERN PEDNC236 22 hours of lab Prerequisite: PEDNC 136. Refinement of jazz technique and skill improvement. | JAZZ-INTERMEDIATE 1 Credit/Unit | | |
| HIP-HOP PEDNC237 22 hours of lab Prerequisite: PEDNC 137. Intermediate study of dance techniques, floor combinations, balance, and longer dance routines of hip hop dance. Develop more confidence and skill through practice. | DANCE-INTERMEDIATE 1 Credit/Unit | | |
| ZUMBA PEDNC240 66 hours of lab Prerequisite: PEDNC 140. 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. | INTERMEDIATE 3 Credits/Units | | |
| HULA PEDNC241 22 hours of lab Prerequisite: PEDNC 141. Focus on Hawaiian traditional dance forms. | INTERMEDIATE 1 Credit/Unit | | |
| AFRICAN PEDNC242 22 hours of lab Prerequisite: PEDNC 142. Continuation of African dance, which focuses on drumming, rhythm, and music predominantly of West Africa. | DANCE INTERMEDIATE 1 Credit/Unit | | |
| BOLLYWOOD PEDNC243 22 hours of lab Prerequisite: PEDNC 143. 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. | INTERMEDIATE 1 Credit/Unit | | |
| IRISH PEDNC244 22 hours of lab Prerequisite: PEDNC 144. Intermediate Irish Dance course on more advanced soft shoe solo and Ceili (group) dances. Dances include the reel, jig, and hornpipe. | DANCE-INTERMEDIATE 1 Credit/Unit | | |

PHYSICAL EDUCATION EXERCISE SCIENCE (PEXS)

CARE AND PREVENTION OF ATHLETIC INJURIES PEXS291 3 Credits/Units

22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in FT 150, BIOL 164, or BIOL 251, or consent of Instructional Unit.

Injury prevention in sports through understanding of conditioning, bio-mechanics, taping, bandaging, nutrition, immediate post-injury care, and rehabilitation of sports injury. [SE] [PNP]

MENTAL PERFORMANCE IN SPORTS PEXS293 3 Credits/Units

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]

SPORT IN SOCIETY PEXS294 3 Credits/Units

33 hours of lecture

Explores the relationship which exists between the multifaceted world of sport and society. Discussion topics include: racism, gender in equality, aggression, deviancy, media/commercialism, as well as youth sports.

Discussion will also include the concept of play, competition and the rapid development of youth sport programs and their impact on the family unit. [PE, SE] [PNP]

INTRODUCTION TO SPORTS OFFICIATING PEXS295 2 Credits/Units

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.

PHYSICAL EDUCATION MARTIAL ARTS (PEMAR)

T'AI CHI
PEMAR150 1 Credit/Unit
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/Unit
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/Unit
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/Unit
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/Unit
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/Unit
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]

T'AI CHI - INTERMEDIATE
PEMAR250 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 150.
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-INTERMEDIATE: TAE KWON DO
PEMAR251 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 151.
Tae Kwon Do is a Korean martial art that predominately focuses on kicking. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: KUNG FU
PEMAR252 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 152.
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-INTERMEDIATE: BRAZILIAN JIU-JITSU
PEMAR253 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 153.

Brazilian Jiu-Jitsu is a Brazilian sport/self defense that uses grappling, wrestling, and locking techniques. A uniform is required. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: JUDO
PEMAR254 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 154.
Judo is a close-quarter combat martial art where students learn falling techniques, basic takedowns, escapes, and joint locks. [PE, SE]

PHYSICAL SCIENCE (PHSC)

GENERAL PHYSICAL SCIENCE
PHSC 101 5 Credits/Units

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/Units

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/Units

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/Units

33 hours of lecture

Prerequisite: A grade of "C" or better in ENGL 098, or eligibility for ENGL 101.

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. [NS, SE]

SCIENCE OF SCI FI
PHSC 110 5 Credits/Units

33 hours of lecture / 44 hours of lab

Prerequisite: Eligibility for MATH 096.

Introduction to the Scientific Method and the principles of Physics, and Chemistry through the investigation of Science Fiction. Learn to distinguish between science and pseudoscience. Through the investigation of science fiction TV shows and films we will establish and investigate both accepted scientific principles and examine and invalidate others. [NS, SE] [PNP]

COOPERATIVE WORK EXPERIENCE
PHSC 199 3 Credits/Units

99 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

PHYSICS (PHYS)

APPLIED

PHYS 090

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

PHYS 091

11 hours of lecture

Concurrent enrollment in PHYS & 124 is required.

Methods of problem-solving in physics. [PNP]

PHYSICS

PHYS 092

11 hours of lecture

Concurrent enrollment in PHYS& 125 required.

Methods of problem-solving in physics. [PNP]

PHYSICS

PHYS 093

11 hours of lecture

Concurrent enrollment in PHYS& 126 required.

Methods of problem-solving in physics. [PNP]

PHYSICS

PHYS 094

11 hours of lecture

Concurrent enrollment in PHYS& 221 required.

Methods of problem-solving in physics.

PHYSICS

PHYS 095

11 hours of lecture

Concurrent enrollment in PHYS& 222 required.

Methods of problem-solving in physics.

PHYSICS

PHYS 096

11 hours of lecture

Concurrent enrollment in PHYS& 223 required.

Methods of problem-solving in physics.

PHYSICS

NON-SCI

PHYS&100

44 hours of lecture

Concurrent enrollment in PHYS 101 Lab course required.

Prerequisite: MATH 090 or equivalent.

Introduction to basic physics concepts for non-science majors, technical students, or students who desire a PHYS 121 or 221 preparatory course. [NS, SE]

PHYSICS

LAB

NON-SCI

MAJORS

PHYS&101

1 Credit/Unit

33 hours of lab

Concurrent enrollment in PHYS 100 course required or consent of the instructor.

Laboratory study of basic physics concepts for non-science majors, technical students, or students who desire a PHYS 121 or 221 preparatory course. [NS, SE]

PHYSICS

5 Credits/Units

CALCULATIONS

1 Credit/Unit

CALCULATIONS

1 Credit/Unit

CALCULATIONS

1 Credit/Unit

CALCULATIONS

1 Credit/Unit

CALCULATIONS

1 Credit/Unit

CALCULATIONS

1 Credit/Unit

MAJORS

4 Credits/Units

GENERAL

PHYS&124

33 hours of lab

Concurrent enrollment in PHYS& 134.

Exploration of classical physics topics in mechanics through laboratory experience. [NS, SE]

GENERAL

PHYS&125

33 hours of lab

Concurrent enrollment in PHYS& 135.

Exploration of classical physics topics in fluids, thermodynamics, and sound through laboratory experience. [NS, SE]

GENERAL

PHYS&126

33 hours of lab

Concurrent enrollment in PHYS& 136.

Exploration of classical physics topics in electricity and magnetism, optics, and modern physics through laboratory experience. [NS, SE]

GENERAL

PHYS&134

44 hours of lecture

Concurrent enrollment in PHYS 091 and PHYS& 124 required.

Prerequisite: A grade of "C" or better in College Trigonometry, and a grade of "C" or better in or concurrent enrollment in College Algebra.

First of a three-term 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. [NS, SE]

GENERAL

PHYS&135

44 hours of lecture

Concurrent enrollment in PHYS& 125 and PHYS 092.

Prerequisite: A grade of "C" or better in PHYS 134.

Second of a three-term sequence beginning with PHYS 134. Fundamental physical principles of sound, fluids, heat, thermodynamics, electricity, and magnetism. [NS, SE]

GENERAL

PHYS&136

44 hours of lecture

Concurrent enrollment in PHYS& 126 and 093.

Prerequisite: A grade of "C" or better in PHYS 135.

Third of a three-term sequence beginning with PHYS 134. Topics in electricity, magnetism, atomic and nuclear physics, and optics. [NS, SE]

COOPERATIVE

PHYS 199

99 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

ENGINEERING

PHYS&231

33 hours of lab

Concurrent enrollment in PHYS& 241.

Students will explore classical physics topics in mechanics through laboratory experience. [NS, SE]

PHYSICS

LAB

I

1 Credit/Unit

PHYSICS

LAB

II

1 Credit/Unit

PHYSICS

LAB

III

1 Credit/Unit

PHYSICS

4 Credits/Units

PHYSICS

4 Credits/Units

PHYSICS

4 Credits/Units

WORK

EXPERIENCE

3 Credits/Units

PHYSICS

LAB

I

1 Credit/Unit

| | | | |
|--|----------------|-----------------|-----------------|
| ENGINEERING | PHYSICS | LAB | II |
| PHYS&232 | | | 1 Credit/Unit |
| 33 hours of lab | | | |
| Concurrent enrollment in PHYS& 242. | | | |
| Students will explore classical physics topics in fluids, thermodynamics, and sound through laboratory experience. [NS, SE] | | | |
| ENGINEERING | PHYSICS | LAB | III |
| PHYS&233 | | | 1 Credit/Unit |
| 33 hours of lab | | | |
| Concurrent enrollment in PHYS& 243. | | | |
| Students will explore classical physics topics in electricity and magnetism, optics, and modern topics through laboratory experience. [NS, SE] | | | |
| ENGINEERING | PHYSICS | | I |
| PHYS&241 | | | 4 Credits/Units |
| 44 hours of lecture | | | |
| Concurrent enrollment in PHYS& 231 and PHYS 094. | | | |
| Prerequisite: Completion of or concurrent enrollment in MATH 152 (or MATH 211). | | | |
| Classical physics topics in mechanics. For students majoring in engineering, chemistry, physics, geology, or mathematics. Beginning course of a three-term sequence offered each year starting fall and winter terms. [NS, SE] | | | |
| ENGINEERING | PHYSICS | | II |
| PHYS&242 | | | 4 Credits/Units |
| 44 hours of lecture | | | |
| Concurrent enrollment in PHYS& 232 and PHYS 095. | | | |
| Prerequisite: A grade of "C" or better in PHYS 241. | | | |
| Physics topics in fluids, heat, thermodynamics, sound, electricity, and magnetism. Second term of a three-term sequence beginning with PHYS 241. [NS, SE] | | | |
| ENGINEERING | PHYSICS | | III |
| PHYS&243 | | | 4 Credits/Units |
| 44 hours of lecture | | | |
| Concurrent enrollment in PHYS& 233 and PHYS 096. | | | |
| Prerequisite: A grade of "C" or better in PHYS 242. | | | |
| Topics in electricity, magnetism, atomic and nuclear physics, and optics. Third term of a three-term sequence beginning with PHYS 241. [NS, SE] | | | |
| SPECIAL | | PROJECTS | |
| PHYS 290 | | | 5 Credits/Units |
| Prerequisite: Consent of Instructional Unit. | | | |
| Opportunity to plan, organize and complete special projects approved by the department. [GE] | | | |

POLITICAL SCIENCE (POLS)

AMERICAN NATIONAL GOVERNMENT AND POLITICS POLS 111

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

55 hours of lecture

The institutions, structures, and political processes at the state and local levels of government in our federal system. [SE, SS]

INTERNATIONAL RELATIONS POLS&203

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

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

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

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

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

55 hours of lecture

Prerequisite: POLS 111, 131 or POLS 203 (or POSC 111, 131 or 211), or consent of Instructional Unit.

Examines the relationship between industrial civilization and the natural environment by exploring underlying ecological philosophies and the economic and political processes by which environmental decisions are made. Emphasis on critical thinking and evaluating alternative points of view. [SE, SS]

SELECTED TOPICS POLS 280

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

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

PROFESSIONAL BAKING (PBAK)

ARTISAN

PBAK 110

22 hours of lecture / 154 hours of lab

Concurrent enrollment in PBAK 111.

Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.

Begins with straight doughs and progresses through overnight fermentation, enrichment, pre-ferments, sourdoughs, rye breads, history of bread-making, professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. Valid Washington State food handlers card.

BREADS

9 Credits/Units

EARLY

PBAK 111

22 hours of lecture / 66 hours of lab

Concurrent enrollment in PBAK 110.

Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.

Covers early morning product and their methods; scones, biscuits and muffins. Includes many specialty and seasonal product such as cake donuts, yeast-raised donuts, fruit pies and cream pies. Covers professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety, baker's math, weights and measures. Students are required to take thorough notes on all lectures, demos and processes. Valid Washington State food handlers card.

MORNING

PRODUCT

5 Credits/Units

VIENNOISERIE

PBAK 120

22 hours of lecture / 154 hours of lab

Concurrent enrollment in PBAK 121.

Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.

Covers laminated doughs, brioche and sweet doughs. Students will learn various pre-ferments, mixing, fermentation, laminating techniques, make-up of product, proofing and baking. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. Valid Washington State food handlers card.

9 Credits/Units

COOKIES, BROWNIES, BARS AND QUICK BREADS

PBAK 121

22 hours of lecture / 66 hours of lab

Concurrent enrollment in PBAK 120.

Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.

Covers production of a variety of cookies by method such as bar, rolled, cut, scooped, refrigerator and decorated. Also covered are brownies, layered bars, cheesecake bars and quick breads. Also covers professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. Valid Washington State food handlers card.

5 Credits/Units

BEGINNING

PBAK 125

22 hours of lecture / 22 hours of lab

Prerequisite: Consent of Instructional Unit.

Covers the basics of cake decorating. Includes professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety. Basic tools of cake decorating and their applications, cutting, filling, crumb frosting and final frosting a cake, borders, writings, basic flowers, and color scheme will be covered. Valid Washington State food handlers card.

CAKE

DECORATING

3 Credits/Units

INTERMEDIATE

PBAK 126

22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in PBAK 125.

Continuation of the basics of cake decorating. Covers professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety. The basic tools of cake decorating and their applications, cutting, filling, crumb frosting and final frosting a cake, borders, writings, extended flower working, and color scheme will be covered. Fondant and fondant working tools will be introduced. Valid Washington State food handlers card.

CAKE

DECORATING

3 Credits/Units

ADVANCED

PBAK 127

22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in PBAK 126.

Continuation of the Intermediate Cake Decorating course. Covers professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety. The basic tools of cake decorating and their applications, cutting, filling, crumb frosting and final frosting a cake, borders, writings, basic flowers, and color scheme will be covered. Continued work with fondant and color working. Valid Washington State food handlers card.

CAKE

DECORATING

3 Credits/Units

CAKES,

PBAK 130

22 hours of lecture / 154 hours of lab

Concurrent enrollment in PBAK 131.

Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.

Covers the mixing methods of various types of cakes and tortes. Includes tart crusts, creams, custards, mousses, butter creams and fillings. Students will learn to assemble a variety of classic cakes, tortes and desserts as well as more modern cakes, from start to finish. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. Valid Washington State food handlers card.

DESSERTS

AND

TORTES

9 Credits/Units

RETAIL

PBAK 131

22 hours of lecture / 66 hours of lab

Concurrent enrollment in PBAK 130.

Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.

Students will learn how to set up the retail area for daily operation, how to make a variety of specialty coffees, cold drinks, Italian sodas and featured drinks. Marketing for effective sales, efficient and friendly customer service and the proper operation of POS system will also be discussed. Valid Washington State food handlers card.

OPERATIONS

AND

BARISTA

5 Credits/Units

APPLIED

PBAK 200

11 hours of lecture / 176 hours of lab

Prerequisite: Successful completion of PBAK 110, PBAK 111, PBAK 120, PBAK 121, PBAK 130 and PBAK 131.

Students will spend two weeks in each of four areas; Artisan bread, Viennoiserie, cakes and tortes, early morning/store/retail. Utilizing acquired skills and knowledge, they will be responsible for production of all product for the retail store. They will create and follow a production schedule, inventory and store product, do mise en place for the next day and clean the station at the end of each day. Valid Washington State food handlers card.

PROFESSIONAL

DEVELOPMENT

9 Credits/Units

PRODUCTION

PBAK 210

22 hours of lecture / 154 hours of lab

Concurrent enrollment in PBAK 211.

Prerequisite: A grade of "C" or better in PBAK 200 and eligibility for ENGL 098 and MATH 030 or MATH 092.

Utilizing acquired skills, students will operate and manage their own production bakery. They will produce product needed for sale in the retail store from the following areas; breakfast items, Viennoiserie, artisan bread, bars, cookies, cakes and dessert items. They will be responsible for planning a daily production schedule, inventory, purchase of necessary ingredients, costing and maintaining daily operation of their station. Valid Washington State food handlers card.

CHOCOLATE

PBAK 211

22 hours of lecture / 66 hours of lab

Concurrent enrollment in PBAK 210.

Prerequisite: A grade of "C" or better in PBAK 200 and eligibility for ENGL 098 and MATH 030 or MATH 092.

Students will learn the origin of chocolate as well as the various types, brands, flavor profiles and qualities of chocolate. Practical application will include tempering chocolate, fillings, shelling and bottoming chocolates. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. Valid Washington State food handlers card.

PASTRY

PBAK 220

22 hours of lecture / 154 hours of lab

Concurrent enrollment in PBAK 221.

Prerequisite: A grade of "C" or better in PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.

Students will be responsible for meeting with the chef of the CTO station to determine the baking/dessert needs for the restaurant each day. They will design and create a dessert menu for the restaurant and upon approval and will make desserts for the daily lunch service. Students will provide a variety of breads/rolls for lunch service and will be required to generate a production schedule that includes daily mise en place, purchasing of required ingredients, inventory and maintenance of the station. Must demonstrate ability to plan and execute production for maximum efficiency and accuracy using proper sanitation practices. Valid Washington State food handlers card.

RETAIL/MERCHANDISING,

PBAK 221

22 hours of lecture / 66 hours of lab

Concurrent enrollment in PBAK 220.

Prerequisite: A grade of "C" or better in PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.

Students will learn how to set up the retail area for daily operation, how to make a variety of specialty coffees, cold drinks, Italian sodas and featured drinks. They will learn marketing for effective sales, efficient and friendly customer service. Students will learn proper operation of POS system as well as professionalism in the workplace, safety and sanitation, equipment use and safety. Valid Washington State food handlers card.

BAKING

9 Credits/Units

LAB

5 Credits/Units

BAKING

9 Credits/Units

INVENTORY/PURCHASING

5 Credits/Units

CAPSTONE

PBAK 230

11 hours of lecture / 110 hours of lab

Concurrent enrollment in PBAK 231.

Prerequisite: A grade of "C" or better in PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.

Students will have five weeks to prepare and execute a display covering one of the following areas: Viennoiserie, Artisan breads, Viennese table, Plated Desserts or Dessert Bar. Each student will receive a complete list of requirements at the beginning of the class. The project will be presented to the faculty for judging. Instruction also covers career development. Valid Washington State food handlers card.

INDUSTRY

PBAK 231

132 hours of clinical

Concurrent enrollment in PBAK 230.

Prerequisite: A grade of "C" or better in PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.

Students will complete a five week externship at an approved bakeshop. Prior to starting the externship, students will generate a list of learning objectives for the externship. Students are required to keep a daily journal of their experience. All paperwork must be turned in upon completion of the externship. Valid Washington State food handlers card.

PROJECT

6 Credits/Units

INTERNSHIP

4 Credits/Units

PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (PTCS)

| | | | |
|---------------------------------|------------------|----------------------|----------------------------------|
| PROFESSIONAL PTCS 110 | TECHNICAL | COMPUTATIONAL | SKILLS 5 Credits/Units |
|---------------------------------|------------------|----------------------|----------------------------------|

55 hours of lecture

Prerequisite: A grade of "C" or better in MATH 030 or MATH 092 or CAP 042 or recommending score on placement test.

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 Proficiency, Associate of Applied Science and the Associate of Applied Technology.

PROFESSIONAL TECHNICAL WRITING (PTWR)

INTRODUCTION TO APPLIED TECHNICAL WRITING
PTWR 135 5 Credits/Units

55 hours of lecture

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.

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.

[CA,CT,GE]

PSYCHOLOGY (PSYC)

GENERAL

PSYC&100

55 hours of lecture

Prerequisite: Eligibility for enrollment in ENGL 101.

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. [SE,HR,SS][PNP]

PSYCHOSOCIAL ISSUES IN HEALTH CARE I
PSYC 122 1 Credit/Unit

11 hours of lecture

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.

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. [SS]

PSYCHOSOCIAL ISSUES IN HEALTH CARE II
PSYC 124 2 Credits/Units

22 hours of lecture

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.

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 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. [SS]

COOPERATIVE WORK EXPERIENCE
PSYC 199 5 Credits/Units

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

LIFESPAN PSYCHOLOGY
PSYC&200 5 Credits/Units

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,HR,SS]

SOCIAL

PSYC 203

55 hours of lecture

Prerequisite: PSYC 100 (or PSYC 101).

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. [HR,SE,SS]

PSYCHOSOCIAL ISSUES IN HEALTH CARE III
PSYC 253 2 Credits/Units

22 hours of lecture

Concurrent enrollment in NURS 251 and NURS 252.

Prerequisite: A grade of "C" or better in NURS 241 and NURS 242.

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. [SS]

PSYCHOLOGY: SELECTED TOPICS
PSYC 280 3 Credits/Units

33 hours of lecture

Prerequisite: PSYC 100 (or PSYC 101) or consent of Instructional Unit.

Selected topics in psychology as listed in the term class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS
PSYC 290 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

ORGANIZATIONAL BEHAVIOR
PSYC 315 5 Credits/Units

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]

SOCIOLOGY (SOC)

INTRO TO SOCIOLOGY

SOC& 101
55 hours of lecture

Prerequisite: Eligibility for enrollment in ENGL 101.

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. [HR,SE,SS]

MARRIAGE AND FAMILY EXPERIENCES IN THE U.S.

SOC 121

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. [HR,SE,SS]

RACE AND ETHNICITY IN THE U.S.

SOC 131

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. [HR,SE,SS]

INTRODUCTION TO ISLAM

SOC 141

33 hours of lecture

Introduction to the world of Islam and Muslim populations. Topics include Islam as a way of life in a socio-cultural context and the ways this religion affects the individual, family, and social life in various Islamic societies. Focus on analyzing Islam both in theory and in practice. [SE]

COOPERATIVE WORK EXPERIENCE

SOC 199

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

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. [GE]

SOCIAL PROBLEMS

SOC& 201

55 hours of lecture

Prerequisite: A grade of "C" or better in SOC& 101.

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. [HR,SESS][PNP]

DEATH AND DYING

SOC 220

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. [HR,SE,SS]

DOMESTIC

SOC 230

55 hours of lecture

Prerequisite: SOC& 101 or PSYC 100 (or SOC 101 or PSYC 101) or WS 101.

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. [SE]

CRIMINOLOGY

SOC 240

55 hours of lecture

Prerequisite: SOC& 101 or PSYC 100 (or SOC 101 or PSYC 101).

An introductory examination of crime, deviant behavior and social control. Crime and deviance as social processes. Historical and contemporary explanations of criminological theory. [SE]

SOCIOLOGY: SELECTED TOPICS

SOC 280

55 hours of lecture

Varying topics in Sociology as listed in the term class schedule. May be repeated for credit. [SE]

SPECIAL

SOC 290

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

VIOLENCE

5 Credits/Units

5 Credits/Units

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SPANISH (SPAN)

SPANISH **I**
SPAN&121 5 Credits/Units

55 hours of lecture

First of a three-term 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 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/Units

55 hours of lecture

Prerequisite: SPAN 121 or two years high school Spanish, or S-CAPE placement test recommended.

Continuation of the elementary Spanish sequence. [HA,SE]

SPANISH **III**
SPAN&123 5 Credits/Units

55 hours of lecture

Prerequisite: SPAN 122 or equivalent, or S-CAPE placement test recommended.

Conclusion of the three-quarter sequence in elementary Spanish. [HA,SE]

CONVERSATIONAL **SPANISH**
SPAN 141 3 Credits/Units

33 hours of lecture

Prerequisite: SPAN 122 or equivalent.

Intensive practice in Spanish conversation. Discussion in small groups of contemporary topics common to American and Hispanic societies. [HB, SE]

STUDY **ABROAD** **ORIENTATION**
SPAN 150 1 Credit/Unit

11 hours of lecture

Prerequisite: A grade of "C" or better or concurrent enrollment in SPAN 122 or above; or consent of Instructional Unit.

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. [SE]

SPANISH **IV**
SPAN&221 5 Credits/Units

55 hours of lecture

Prerequisite: SPAN 123 or equivalent, or S-CAPE placement test recommended.

Discussion in Spanish of topics from Hispanic civilization and culture. Intensive grammar review and composition practice. [HA, SE]

SPANISH **V**
SPAN&222 5 Credits/Units

55 hours of lecture

Prerequisite: SPAN 221 or equivalent.

Discussion in Spanish of topics from Hispanic civilization and culture. Intensive grammar review and composition practice. [HA, SE]

SPANISH **VI**
SPAN&223 5 Credits/Units

55 hours of lecture

Prerequisite: SPAN 222 or equivalent.

Discussion in Spanish of topics from Hispanic civilization and culture. Intensive grammar review and composition practice. [HA, SE]

SELECTED **TOPICS**
SPAN 280 5 Credits/Units

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 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

SURVEYING & GEOMATICS (SURV)

FUNDAMENTALS OF SURVEY

SURV 102
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
55 hours of lecture

Prerequisite: A grade of "C" or better in College Trigonometry. Basic coordinate geometry, curves and solutions, conversions, statistics and error analysis, traverse calculations, inverting, coordinate positions, and area calculations. [GE]

FIELD SURVEY I

SURV 121
33 hours of lecture / 44 hours of lab

Concurrent enrollment in Lab.

Prerequisite: A grade of "C" or better in MATH 095 or MATH 096 or equivalent placement score.

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. [GE]

FIELD SURVEY II

SURV 122
33 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in SURV 121.

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. [GE]

PROFESSIONAL ETHICS

SURV 123
11 hours of lecture

Prerequisite: Completion of, or concurrent enrollment in, SURV 121.

Survey safety, ethics, and communication. Problem solving methods, procedures, and human relations related to on-the-job work experience in field surveying. [GE] [PNP]

INTRODUCTION TO GIS

SURV 125
22 hours of lecture / 22 hours of lab

Prerequisite: Eligibility for MATH 096.

Introduction to Geographic Information Systems (GIS) methods and theory. Background and development of GIS technology. Introduction to relational and spatial databases and spatial analysis. [GE]

ROUTE SURVEYING

SURV 163
33 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better in SURV 122.

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. [GE]

CO-OP WORK EXPERIENCE

SURV 199
165 hours of clinical

Prerequisite: A grade of "C" or better in SURV 121.

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. [GE]

BOUNDARY SURVEYS

SURV 202
44 hours of lecture

Prerequisite: Completion of or concurrent enrollment in SURV 121.

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. [GE]

LEGAL DESCRIPTIONS

SURV 203
33 hours of lecture

Prerequisite: A grade of "C" or better in SURV 121.

Research and practice pertaining to the legal aspects of writing land description documents used in real property; written research project required. [GE]

BOUNDARY LAW I

SURV 223
33 hours of lecture

Prerequisite: A grade of "C" or better in SURV 121.

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. [GE]

SUBDIVISION PLANNING A & PLATTING

SURV 225
33 hours of lecture

Prerequisite: A grade of "C" or better in SURV 102 and 122.

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. [GE]

ARC GIS I

SURV 250
22 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in SURV 125.

Introduction to ArcGIS. GIS concepts, methodologies, and techniques. [GE]

MAP

SURV 252

22 hours of lecture

Prerequisite: Completion of or concurrent enrollment in SURV 121.

Overview of map projections with emphasis on conformal projections used in the geomatics profession. U.S. State Plane Coordinate system, implementation, and computations. [GE]

PROJECTIONS

2 Credits/Units

INTRODUCTION**TO****GPS**

SURV 253

2 Credits/Units

11 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in SURV 252.

Introduction to global positioning tools. Fundamental concepts and use of modern handheld GPS. Includes field work and use of basic GPS software. [GE]

SURVEY**SOFTWARE****APPLICATIONS**

SURV 264

4 Credits/Units

33 hours of lecture / 22 hours of lab

Prerequisite: A grade of "C" or better in SURV 121.

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. [GE]

SELECTED**TOPICS**

SURV 280

6 Credits/Units

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

5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

TUTORING (TUTR)

TUTORING

TUTR 185 3 Credits/Units

66 hours of lab

Introduction to methods and techniques in tutoring. Tutoring training assignments in various disciplines. [GE]

TUTORING-WRITING

TUTR 186 3 Credits/Units

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 (WELD)

INTRODUCTION TO WELDING WELD 102 6 Credits/Units

44 hours of lecture / 44 hours of lab

Prerequisite: A grade of "C" or better, or concurrent enrollment in HLTH 120, and eligibility for MATH 030 or MATH 092.

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. [GE]

WELDING BLUEPRINT READING WELD 110 5 Credits/Units

55 hours of lecture

Interpretation of welding blueprints, welding symbols, tolerances and structural shapes. [GE]

WELDED SCULPTURE LAB I WELD 120 3 Credits/Units

66 hours of lab

Concurrent enrollment in ART 295 required.

Development of a rudimentary expressive design language using welded metal as a medium. Exploration of beginning welding and metal-working skills. [GE]

WELDING SCULPTURE LAB II WELD 121 3 Credits/Units

66 hours of lab

Concurrent enrollment in ART 296 required.

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. [GE]

WELDED SCULPTURE LAB III WELD 122 3 Credits/Units

66 hours of lab

Concurrent enrollment in ART 297 required.

A fabricated welded metal sculpture is created while learning advanced metal working skills. The gas tungsten arc welding process and resistance welding are covered. [GE]

GAS METAL ARC WELDING WELD 140 6 Credits/Units

33 hours of lecture / 66 hours of lab

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.

Instructional theory and application of Gas Metal Arc Welding processes on ferrous metals. [GE]

GAS METAL ARC FABRICATION WELD 141 6 Credits/Units

33 hours of lecture / 66 hours of lab

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.

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. [GE]

FLUX CORE ARC WELDING WELD 142 6 Credits/Units

33 hours of lecture / 66 hours of lab

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.

Instructional theory and application of arc cutting processes/oxyfuel cutting and flux core arc welding processes on ferrous metals. [GE]

FLUX CORE ARC FABRICATION WELD 143 6 Credits/Units

33 hours of lecture / 66 hours of lab

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.

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. [GE]

SHIELDED METAL ARC WELDING WELD 144 6 Credits/Units

33 hours of lecture / 66 hours of lab

Concurrent enrollment in WELD 145 or consent of Instructional Unit.

Prerequisite: A grade of "C" or better in WELD 102, 142 and 143, or consent on Instructional Unit.

Instructional theory and application of arc cutting processes/oxyfuel cutting and shielded metal arc welding processes on ferrous metals. [GE]

SHIELDED METAL ARC FABRICATION WELD 145 6 Credits/Units

33 hours of lecture / 66 hours of lab

Concurrent enrollment in WELD 144 or consent of Instructional Unit.

Prerequisite: A grade of "C" or better in WELD 102, 142 and 143, or consent of Instructional Unit.

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. [GE]

WELDING CERTIFICATION WELD 156 2 Credits/Units

44 hours of lab

Prerequisite: Successful completion with a "C" or better of WELD 102 and consent of Instructional Unit.

Students will review the requirements to earn program required AWS welding certifications. [GE] [PNP]

COOPERATIVE WORK EXPERIENCE WELD 199 5 Credits/Units

165 hours of clinical

Prerequisite: Consent of Instructional Unit.

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

GAS TUNGSTEN ARC WELDING WELD 240 6 Credits/Units

33 hours of lecture / 66 hours of lab

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.

Instructional theory and application of arc cutting process/oxyfuel cutting and gas tungsten arc welding processes on ferrous metals. [GE]

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|------------|--------------|------------|--------------------|
| GAS | METAL | ARC | FABRICATION |
| WELD 241 | | | 6 Credits/Units |

33 hours of lecture / 66 hours of lab

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.

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. [GE]

| | | | |
|-----------------|-------------|-------------|-----------------|
| ADVANCED | WIRE | FEED | WELDING |
| WELD 242 | | | 6 Credits/Units |

33 hours of lecture / 66 hours of lab

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.

Advanced instructional theory and application of arc cutting processes/ oxyfuel cutting, sub-arc welding and wire feed welding processes on ferrous and nonferrous metals. [GE]

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|-----------------|-------------|-------------|--------------------|
| ADVANCED | WIRE | FEED | FABRICATION |
| WELD 243 | | | 6 Credits/Units |

33 hours of lecture / 66 hours of lab

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.

Application of concepts of wire feed welding processes on ferrous and nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

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|-----------------|------------|-----------------|------------|-----------------|
| ADVANCED | GAS | TUNGSTEN | ARC | WELDING |
| WELD 244 | | | | 6 Credits/Units |

33 hours of lecture / 66 hours of lab

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.

Advanced instructional theory and application of arc cutting processes/ oxyfuel cutting and gas tungsten arc welding processes on ferrous and nonferrous metals. [GE]

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|-----------------|------------|-----------------|------------|--------------------|
| ADVANCED | GAS | TUNGSTEN | ARC | FABRICATION |
| WELD 245 | | | | 6 Credits/Units |

33 hours of lecture / 66 hours of lab

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.

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. [GE]

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|-----------------|-----------------|
| SELECTED | TOPICS |
| WELD 280 | 6 Credits/Units |

66 hours of lecture

Selected topics in Welding as listed in the term class schedule.

Repeatable for credit. [GE]

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|----------------|-----------------|
| SPECIAL | PROJECTS |
| WELD 290 | 5 Credits/Units |

Prerequisite: Consent of Instructional Unit required.

Projects assigned according to needs and abilities of the student. Hours arranged with instructor. Maximum of 15 credits allowed toward a certificate or degree. [GE]

WOMEN'S STUDIES (WS)

INTRODUCTION TO WOMEN'S STUDIES
WS 101 5 Credits/Units

55 hours of lecture

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.

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. [HA,HR,SE,SS]

WOMEN AROUND THE WORLD
WS 201 3 Credits/Units

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/Units

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/Units

55 hours of lecture

Prerequisite: WS 101.

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. [SE, SS] [PNP]

RACISM & WHITE PRIVILEGE IN THE U.S.
WS 225 3 Credits/Units

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 3 Credits/Units

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 5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department. [GE]

ENROLLMENT, AID AND COLLEGE LIFE

- Academic Standards Policy (p. 291)
- Advising (p. 293)
- Career Services (p. 294)
- College Life (p. 295)
- Credential Evaluations Office (p. 301)
- Enrollment Services (p. 304)
- eLearning (p. 308)
- Financial Aid (p. 309)
- Registration (p. 315)
- Special Instructional Programs and Locations (p. 320)
- Student Orientation (p. 321)
- Student Success Programs (p. 322)

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 grade point average (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 grade point average (GPA) falls below 2.0, students will be placed on Academic Intervention.

- By the third week of the subsequent term, 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 grade point averages (GPA) 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 grade point average (GPA) of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term grade point average (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 grade point averages (GPA) 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 grade point averages (GPA) of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term grade point averages (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.

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.

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

360-992-2154

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

360-992-2154

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.

COLLEGE LIFE

Archer Gallery

360-992-2246

<http://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

360-992-2691

<http://www.clarkpenguins.com/index.aspx>

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 (<http://www.clarkbookstore.com>)

The Clark College Bookstore, owned and operated by the College, is located in Gaiser Hall and provides shipments or reservations (https://www.clarkbookstore.com/site_csi_full.asp#Online%20Textbook%20Reservation) from 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 (https://www.clarkbookstore.com/site_text_path.asp), textbook and calculator rentals (https://www.clarkbookstore.com/site_rentals.asp), peer-to-peer textbook exchange (https://www.clarkbookstore.com/swap_main.asp), 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 (https://www.clarkbookstore.com/site_theatre.asp), USPS stamps, C-Tran bus passes (http://www.clark.edu/campus-life/student_ID.php), payment for parking and student IDs (http://www.clark.edu/campus-life/student_ID.php) and more.

Information regarding accepted payment methods (https://www.clarkbookstore.com/site_payment_options.asp), returns/exchanges (https://www.clarkbookstore.com/site_returns.asp), and more can be obtained by visiting us in store or online at www.clarkbookstore.com (<https://www.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

<http://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);
- 50-plus events and activities each year including Welcome Week, Involvement Fair, and Spring Thing – see our online events calendar (<http://www.clark.edu/about/governance/calendars/events.php>) 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, microwave, toaster and hot water;
- Relaxing game room where you can enjoy TV, a massage chair, board games, and more;
- FREE student planner;
- Free one-time legal consultation services;
- Discounted C-Tran bus passes;
- Discounted Fitness Center passes;
- Student-use lockers.

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

<http://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.

Student Government – Associated Students of Clark College (ASCC)

http://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 Student Government consists of seven-members that act 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)

<http://www.clark.edu/campus-life/student-life/ascc/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 40+ 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 (<http://www.clark.edu/about/governance/calendars/events.php>).

Student Publications

The Independent

<http://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

<http://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:

- Applied Arts AA4, Rm. 116
- Bauer Hall, Rm. 101 and Rm. 102
- Cannell Library, Rm. 100, Rm. 102, and Rm. 203
- Scarpelli Hall, Rm. 135 and Rm. 023
- Clark College at WSUV, Rm. 129

- Clark College at Columbia Tech Center, Rm. 212 and Rm. 219
- Pathways Center, TBG, Rm. 226

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
<http://www.clark.edu/campus-life/student-support/counseling/index.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 at the website listed above. Over the counter medications, menstrual supplies, and safer-sex items 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 (DSS)

360-992-2314 – Voice 360-991-0901 – Video Phone

www.clark.edu/DSS

Clark College and the Disability Support Services (DSS) Office staff assist those with disabilities in pursuing their educational goals. The DSS staff is committed to assuring Clark College's 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.

Clark College recognizes that traditional methods, programs, and services may need to be altered to assure full accessibility to qualified persons with disabilities. The DSS Office is the primary focus of efforts by Clark College to assure nondiscrimination on the basis of disability. Through the DSS Office, qualified persons with disabilities can address their concerns regarding attitudinal or procedural barriers encountered, as well as any need for accommodation to assure equal access. The DSS Office will provide information, approve accommodations, and partner with faculty on the provision of accommodations. DSS serves 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 interior loudspeakers. Additional notifications are also available to students and employees through text messages and email with a free subscription to RAVE (http://www.clark.edu/campus-life/student-support/computing_resources/rave_emergency_notification_system.php). 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
http://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;
- 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

The McClaskey Culinary Institute at Clark College offers a variety of dining options to the campus and community. The food court offers a retail bakery with coffee service, where students in the Professional Baking and Pastry Arts program produce all product, and multiple kiosks where students in the Cuisine program produce many of the dining options. At the McClaskey Culinary Institute, we strive to provide options for all diets and tastes in a welcoming environment conducive to studying or meeting with friends. Services provided during the quarter and over the breaks to accommodate both day and evening students. Starting in Fall 2018 a student run restaurant will open for lunch service and will be open during the quarter.

Snacks, light meals and beverages are also available from vendors in Bauer Hall, Joan Stout Hall, and the Foster/Hanna lobby during the academic year. The Bookstore maintains a wide variety of convenience food and beverage items. Vending machines and microwaves can also be found in many locations.

Health Insurance

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

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

<http://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 78 electronic databases. Consult the Library website or call 360-992-2151 for hours of service and other library information.

Office of Diversity and Equity

360-992-2292

The function of the Office of Diversity and Equity is to support the goals of Clark's Social Equity Plan. We assist in the accomplishment of these goals through serving as a resource on related issues, providing training and educational programs, inviting speakers and performers, and providing opportunities for individuals to feel connect with those who have felt disconnected in the past and with their community. The Office of Diversity and Equity is committed to serving systemically non-dominant communities as they navigate Clark College. We support Clark College's goal of recruiting and retaining a diverse student body and workforce.

The Diversity Center is a welcoming and safe place for the entire Clark community (students, faculty, staff, and community members) to learn about and engage in conversations regarding diversity, inclusion, power, privilege, inequity, and social justice.

Parking and Traffic Rules

360-992-2133

<http://www.clark.edu/about/governance/public-disclosure-and-records/adminProcedures/500/530/index.php>

Traffic and parking regulations at the College are authorized by the Board of Trustees and codified under the Washington Administrative Code (132N-156 WAC). 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 or metered 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 (<https://www.c-tran.com>), 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

<http://www.clark.edu/campus-life/student-support/security/index.php>

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 and professional goals. The Department is comprised of 25 full and part-time non-sworn officers and support staff. An officer can be reached on main campus 24 hours a day/7 days a week/365 days a year. The department is charged with protecting life and property, providing service and assisting students, staff, and community members. The Security/Safety Department strives to offer proactive protection services to the college community by stressing prevention above response, planning above reaction, education above enforcement, and service above all.

The Security/Safety Department can provide informational and directional assistance; aid to stranded motorists including jump starts and lockout service; security escorts across campus; crime prevention advice; and other general assistance to students, staff, faculty and guests of the college. The Security/Safety Department works cooperatively with the emergency response agencies (police, fire &

EMS) in emergency, dangerous or volatile situations, and/or in criminal investigations.

The Department provides all information required by the Clery Act, which is published in an annual security report by October 1st of each year. For more information about the Annual Crime and Security Report please visit: <http://www.clark.edu/campus-life/student-support/security/report.php>

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.

Tutoring Services

<http://www.clark.edu/campus-life/student-support/tutoring/index.php>

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

Located in the T Building, room 228. The Transitional Studies Tutoring Center 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.

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 Center

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. Help is available on a drop-in or appointment basis.

Accounting & Business Center

Located in Applied Arts 4 (AA4), 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.

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 <http://www.etutoring.org/index.cfm>, click the login icon, select "Western eTutoring Consortium," then "Clark College," and follow the instructions. Canvas course shells may also include an eTutoring link in the navigation panel on the left of the screen.

Veterans Resource Center

360-992-2073

vresources@clark.edu

<http://www.clark.edu/campus-life/student-support/vrc/index.php>

Located in Penguin Union Building, room 015, 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.

CREDENTIAL EVALUATIONS OFFICE

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 <http://www.clark.edu/enroll/advising-services/credential-evaluation/index.php> 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 committed 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 individuals 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 www.clark.edu/enroll/credential-evaluation/clep.php. 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 (<https://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 2018 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 (<http://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.

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. 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. Students who are (16) years of age or older may enroll in summer term. 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 meet with an advisor before they may register for classes. Prior to meeting with an advisor, please have your placement documentation submitted or with you at the time of your appointment. For more information please visit website at www.clark.edu/enroll/advising-services/index.php

Transfer Student Admission

Students transferring from other colleges are required to submit an admissions application and pay a non-refundable application fee. Transfer students are required to meet with an advisor 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. Students may use previous coursework or course placement to meet the prerequisite for English and or Mathematics. Please visit www.clark.edu/assessment for additional information. 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 Post-secondary 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. Returning students are required to meet with an advisor before they may register for classes.

If a student has attended another college since their last enrollment at Clark College and wants to apply those credits to a Clark College program, an official transcript 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.

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.

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.

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.

Residency Classifications

www.clark.edu/enroll/admissions/admission_forms.php

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 more than one day 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 Residency Reclassification Application, 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.
- **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 http://www.clark.edu/enroll/admissions/admission_forms.php or visit Enrollment Services in Gaiser Hall room 128.

- **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 Enrollment Services in Gaiser Hall room 128.

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

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 of the term, 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.

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
 - Running Start
- High School Completion Office
 - High school completion
- Veterans Affairs Office
 - Military personnel
- Running Start Office
 - Running Start

Course Placement

360-992-2588

Course placement is an important step toward student success. Prior to accessing placement services, students must complete an application for admission and pay the non-refundable admission application fee. Many courses at Clark College have placement prerequisites for English and Mathematics ability. The course that students place into determines how they progress through their program of study and how long their degree will take. We have a variety of ways to assess skills, and one method may not work for all. Visit www.clark.edu/assessment for more information on available placement and retesting options.

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 <http://www.clark.edu/enroll/admissions/assessment/proctoring.php> to download a proctor request form.

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 and pay the non-refundable application fee, 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 older 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
- Science
- Mathematics
- 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.GED.com (<https://catalog.clark.edu/enrollment-aid-college-life/enrollment-services/www.GED.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, located in Gaiser Hall, room 128, to enable the online scheduling feature.

GED preparation classes are available through Clark College. Contact 360-992-2588 for further information.

ELEARNING

eLearning@clark.edu (learning@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.

Clark College has dedicated a number of resources to ensuring exceptional Universal Design for Learning practices and proactively attending to accessibility concerns.

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 What is eLearning page (<http://www.clark.edu/academics/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.

For more information regarding these programs, please contact the Advising department.

Students registering for web-enhanced, hybrid, or online courses can get help preparing by visiting the following pages:

- Is eLearning Right for Me? (http://www.clark.edu/academics/eLearning/self_assess.php)
- eLearning Programs (<http://www.clark.edu/academics/eLearning/programs>)
- Canvas Orientations (http://www.clark.edu/academics/eLearning/student_orientation.php)

The Smarter Measure test is recommended for help with assessing technology skills and learning styles. Here is a link: Welcome to Clark SmarterMeasure! (http://www.clark.edu/Library/Tech/smartermeasure_info.php)

What Types of Programs are Offered?

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

1. Associate in Arts General Transfer degree (AA DTA): In a combination of formats including online, hybrid, and weekend hybrid.
2. 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 (<http://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 the Technical Requirements page (http://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 their website (http://www.clark.edu/campus-life/student-support/computing_resources/techhub).

FINANCIAL AID

360-992-2153

<http://www.clark.edu/enroll/paying-for-college/financial-aid/index.php>

The Financial Aid Office helps improve college affordability for students by expanding access to and information about financial resources.

Financial Aid Eligibility

In general, students must meet the following criteria to qualify for financial aid:

- Demonstrate financial need as determined by the Department of Education through completing the FAFSA
- Be a U.S. citizen or an eligible noncitizen.
- Have a valid Social Security number (with the exception of students from the Republic of the Marshall Islands, Federated States of Micronesia, or the Republic of Palau).
- Male applicants between the ages of 18 and 25 must be registered with Selective.
- Be admitted to Clark College as a *regular student* in an eligible degree or certificate program.
- Not be in default on a federal loan or owe an overpayment on a federal grant.
- For state aid, not owe a repayment of a state grant or loan.
- Have a high school diploma or GED.
- Students without a high school diploma or GED may qualify through Ability to Benefit.
- Meet satisfactory academic progress.
- Agree to use federal student aid only for educational purposes.

Types of Financial Aid Available

Financial aid includes grants, tuition waivers, work study, and student loans. Funds are awarded according to the Clark College Financial Aid Packaging Policy. 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 four (4) 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 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. Information is available online at www.wsac.wa.gov (<http://www.wsac.wa.gov>).
- **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 (<http://www.wsac.wa.gov>).

- **Clark College Grants and Waivers:** Clark College reserves a percentage of tuition revenue and offers these funds to Washington State resident students in the form of institutional grants and tuition waivers. Clark College offers the following institutional grants and waivers:
 - **Clark College Grants and Need-Based Tuition Waiver:** May only be awarded to reduce the cost of tuition, and cannot be applied toward fees or disbursed directly to the student. Student athletes receiving an Athletic Tuition Waiver are not eligible to receive this additional waiver.
 - **Clark College Non-Need Based Tuition Waiver:** May only be awarded to reduce the cost of tuition, and cannot be applied toward fees or disbursed directly to the student.
- **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 six (6) or more credits per term.
- **Federal Direct 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). Students who are eligible for a loan, will have an offer included in their award letter.
 - There are two types of federal student loans: subsidized and unsubsidized. Students who 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.

Loan Disbursement Holds:

- Students who are first time borrowers are limited on the maximum period of time they can receive subsidized loans. Eligibility is limited to 150% of the length of the student's program of study. Additional information about subsidized loan limitations is available at <http://www.clark.edu/enroll/paying-for-college/loans/index.php>
- New students borrowing a loan for the first time 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 borrowing a loan for a single quarter will receive their disbursements in two installments. The first disbursement will be on the 1st day of the term and the second 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.

Application Process

The annual application process begins by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov (<https://fafsa.ed.gov>). The FAFSA is available starting October 1. 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 2018 should complete their financial aid file by

May 3, 2018. Priority processing dates for winter 2019 is November 15, 2018 and spring 2019 is March 7, 2019.

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 (<http://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 and work study included on the award letter are offers and require additional application steps.

All financial aid awards are automatically applied toward tuition and fees. If the financial aid award is not sufficient to pay tuition and fees in full, the student is responsible for the 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 generally issued one (1) to two (2) business days before the start 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.

BankMobile Refund Selection Kit

Through a partnership with BankMobile, Refund Selection Kits are issued to all Clark College students who apply for financial aid. The kits are mailed by BankMobile to students after they complete their financial aid file. Students should visit their refund website (<https://www.refundselection.com/refundselection/#/welcome/continue>) after receiving their kit to choose how they wish to receive their disbursements each term. Students can choose to have their disbursements deposited into an existing bank account, directly deposited into a BankMobile Vibe account offered by BankMobile, or mailed as a paper check. Additional information about the BankMobile Refund Selection Kit is available online at www.clark.edu/cc/finaid.

Census Date

Enrollment level is the range of credits that a student is registered for and correlates with the level of funding.

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

Increasing Enrollment Level (Adding Credits)

If a student adds classes during the first week of the term the Financial Aid Office will recalculate the student's financial aid awards. If there are additional funds to disburse, they will be released through the student's Customer's Bank option.

Decreasing Enrollment Level (Dropping Credits)

If a student drops to a lower enrollment level after their refund disbursement is released to Customers Bank, the student will be billed based on their change in enrollment. Money owed is identified as a Pell Grant overpayment.

Census Date Adjustments

The Financial Aid Census Date may be adjusted due to College closures resulting from inclement weather or other unforeseeable circumstances that cause the campus to be closed during the first five business days of the term. In the event of unexpected closures, Financial Aid, Enrollment Services, and Accounting Services will coordinate efforts to extend refund periods, and payment deadlines as needed.

Late Start or Module Classes

A student may enroll in class(es) that begin after the official term start date, or end before the official term end date. Financial aid will include module classes in the enrollment level at the time funds are sent to Customers Bank. If a student does not commence attendance or drops a module class prior to the class start date, they will be billed based on their change in enrollment. Money owed is identified as a Pell Grant overpayment.

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 Accounting Services. If a student has not repaid the debt in full, or made payment arrangements, the debt will be referred to ED Debt Resolution Services (<https://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 our website (http://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. SAP is reviewed both annually and at the end of each payment period. All terms of attendance, including those in which financial aid was not received, are used in determining SAP status.

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

1. **Grade Point Average (GPA)** if the cumulative GPA falls below 2.0 at the end of the term the student will not have met the GPA requirement to remain in good standing. In addition, a student must have and maintain a minimum 2.0 cumulative GPA at the end of their sixth term and beyond to avoid an automatic suspension.
2. **Maximum Timeframe** is measured to ensure students are taking required courses to complete their certificate or degree. Financial aid will be suspended and program progression must be reviewed at 125%. Students will be ineligible for further funding if it is mathematically impossible to complete the program of study within 150% of the length of the program.
3. **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.

| Credits/Units registered at the time of disbursement | You will remain in good standing if you successfully complete |
|--|---|
| Full Time (12-18 credits/units) | 12 credits/units per term |
| 3/4 Time (9-11 credits/units) | 9 credits/units per term |
| 1/2 Time (6-8 credits/units) | 6 credits/units per term |
| Less Than 1/2 Time (1-5 credits/units) | All attempted credits/units per term |

Financial Aid Warning Status

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

- Cumulative GPA falls 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)

| Credits/Units registered at the time of disbursement | Warning will occur if you complete | Suspension will occur if you complete |
|--|------------------------------------|---------------------------------------|
| Full Time (12-19 credits/units) | Between 6-11 credits/units | 5 credits/units or less |
| 3/4 Time (9-11 credits/units) | Between 6-8 credits/units | 5 credits/units or less |
| 1/2 Time (6-8 credits/units) | Not Applicable | 5 credits/units or less |
| Less Than 1/2 Time (1-5 credits/units) | Not Applicable | Less than all attempted credits/units |

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 SAP 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 SAP 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
 - Does not meet 67% progression and/or
 - Cumulative GPA falls below 2.0 at the end the term
- Has a cumulative GPA below a 2.0 at the end of the 6th term of attendance and beyond
- Has attempted 125% of the credits required for the program
- Has failed to meet requirements of their Academic Plan contract
- Not all attempted credits are completed (as noted on the chart below)

| Credits/Units registered at the time of disbursement | Suspension will occur if you complete |
|--|---------------------------------------|
| Full Time (12-19 credits/units) | 5 credits/units or less |
| 3/4 Time (9-11 credits/units) | 5 credits/units or less |
| 1/2 Time (6-8 credits/units) | 5 credits/units or less |

| | |
|--|---------------------------------------|
| Less Than 1/2 Time (1-5 credits/units) | Less than all attempted credits/units |
|--|---------------------------------------|

Regain Eligibility for Financial Aid

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

1. Filing a **Satisfactory Academic Progress Appeal** or
2. Submitting a **Request for Reinstatement**

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's illness, injury, a death in the family or unusual circumstance, students may appeal to regain financial aid eligibility. **Students are limited to two (2) appeals at Clark College** (Maximum Timeframe appeals are excluded from this limit).

The appeal must include:

1. Satisfactory Academic Progress Appeal Form (http://www.clark.edu/enroll/paying-for-college/documents/SAP_Appeal.pdf)
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 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 Academic 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.

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 (<http://www.clark.edu/enroll/paying-for-college/documents/Reinstatement.pdf>) when they have satisfied the following conditions:

1. Enrolled in and completed a minimum of 5 program required credits (CAP courses are ineligible) with a cumulative GPA of 2.0 or higher, and
2. Pace of progression is 67% or higher

All credits attempted in reinstatement term must be completed. Receiving grades of F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress), N (audit), and R (repeat) will hinder eligibility for financial aid reinstatement and may increase the number of credits required 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 satisfactory academic progress requirements at the end of the next term of attendance (see warning section for details).

Other Requirements and Limitations

I. Maximum Timeframe

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 reached 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. Transitional support coursework that is attempted and results in an asterisk (*) grade such as ABE, GED, ESL, ENL, and some CAP coursework are excluded. 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.

II. Program Changes

If a student was approved in a previous appeal with specific academic conditions, those conditions must be met **before** changing their program. If the student wants to change their program prior to completing 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.

Financial Aid Funds Repayment Policy

Students who officially or unofficially withdraw from all classes, or complete zero credits at the end of the term, may owe a repayment of financial aid funds received. The Financial Aid Office is required to determine the percentage of funds earned by the student and is based on the withdrawal date.

Official Withdrawal: The date the student withdrew, according to Clark College Enrollment Services (<http://www.clark.edu/enroll/registration/manage-enrollment/registration-information.php>) withdrawal procedures.

Unofficial Withdrawal: If the student did not officially withdraw, the date of withdrawal is determined as outlined below. The Financial Aid Office will use the latest date.

- The last date of participation in an academically related activity or the midpoint of the term. The last date of participation is reported by the instructor to Enrollment Services.
- The midpoint of the term in which funds were received.

Repayment of Title IV Funds

Title IV funds include Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Subsidized Loans, and Unsubsidized Loans. Title IV funds

are subject to the Department of Education Return of Title IV policy requirements. The amount of Title IV funds a student earns, is equal to the percentage of the term completed.

For example, students who complete 40% of the term are considered to have earned 40% of Title IV funds received, the other 60% is considered unearned aid.

Once 60% or more of the term has been completed, 100% of Title IV funds have been earned, and the student will not owe a repayment.

The formula for calculating the amount of Title IV funds that must be returned is determined as follows:

1. Determine the percentage of Title IV funds earned based on the date of official or unofficial withdrawal.
2. Multiply the percentage of unearned Title IV funds by the amount of Title IV funds received.

Once the repayment amount has been calculated, the Financial Aid Office will determine the College's and student's responsibility in repayment of funds.

Clark College's responsibility in repayment is either the percentage of unearned Title IV funds multiplied by tuition and fee charges or the total repayment amount. The calculation which determines the lowest amount, will be utilized. The amount of unearned Title IV funds which the College is responsible for will be returned 45 days from the date the College determined the student withdrew. The funds will be returned in the following order:

1. Unsubsidized Direct Loans
2. Subsidized Direct Loans
3. Direct PLUS Loans
4. Pell Grants
5. Supplemental Education Opportunity Grants
6. Other Federal, State, Private, or Institutional financial assistance

Any refunds (http://www.clark.edu/enroll/registration/refund_policies.php) issued as a result of the withdrawal will be applied by the College to the student's repayment amount. Students will be billed by Clark College Accounting Services for the remaining balance of the return.

The student's responsibility in repayment is determined by subtracting the College's repayment from the total repayment amount. Any amount of unearned Pell Grant or SEOG funds that a student must return is considered an overpayment. The student repayment amount is half of the grant funds received.

Students who owe an overpayment 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 Department of Education Debt Resolution Services (www.myeddebt.ed.gov (<http://www.myeddebt.ed.gov>)). Students who fail to comply with the terms of their agreement to repay will immediately become ineligible for Title IV funds.

Repayment of State Financial Aid

State financial aid funds include Washington State Need Grant and College Bound Scholarship. State financial aid funds are subject to the Washington State Student Achievement Council (WSAC) Repayment

policy. This policy goes into effect only if a student withdraws or completes zero credits at the end of the term.

Under this policy, students earn the percentage of State funds received that is equal to the percentage of the term completed. Students who complete 50% or more of the term prior to withdrawing are considered to have earned 100% of Title IV funds received, and will not owe a repayment.

The date of withdrawal and repayment amount are determined according to the same methodology outlined above. Refunds issued as a result of the withdrawal will be applied to reduce the student repayment amount. Students who owe a repayment of State financial aid will receive a bill from Clark College Accounting Services, and will not be eligible to receive additional State financial aid until the repayment has been paid in full. Any unpaid repayments will be referred to the WSAC for collection by June 30, 2018.

Other Educational Resources Available

Scholarships

360-992-2582

<http://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 grade point average (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.

Workforce Education Services

360-992-2729

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. 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 approved 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.

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. An administrative processing fee applies to agencies who fund these student expenses.

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 each 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 our website for a complete checklist of requirements <http://www.clark.edu/campus-life/student-support/vrc/forms.php>

The Code of Federal Regulations (38 CFR 21.4201) states VA shall not approve the enrollment of any VA-eligible person, not already enrolled, in any course for any period during which more than 85 percent of the students enrolled in the course are having all or part of their tuition, fees, or other charges paid to or for them by an Education Institution or VA. The VA will only pay the monthly stipend/BAH for the period students are enrolled in and attending class(es).

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.

Clark College attempts to limit student enrollment to 85% veteran enrollment per cohort. In the event that a veteran wishes to enroll in a course that has already reached the 85% cap, he or she may do that but will not be eligible for VA funding. Chapter 35 and 31 students may enroll even if the 85% has been realized.

The College's School Certifying Officials can be reached utilizing the contact information below:

Mike Gibson
(P) 360-992-2711
(E) mgibson@clark.edu

Cary Bare
(P) 360-992-2736
(E) cbare@clark.edu

REGISTRATION

360-992-2183

For more detailed information regarding registration for new, continuing or transfer students please see the registration website at <http://www.clark.edu/enroll/registration/index.php>.

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 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.

Course Formats

Students can register for courses in several different formats including web-enhanced, hybrid and online. See Clark College eLearning for more details on what each format requires.

Online Registration Services

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

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

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

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 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 096 to MATH 092.
- 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 Transition Studies 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, students 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.

Students registered in online courses must log into their course by the first day of the term and complete all first-week course requirements by their due dates. This is accomplished by accessing the Canvas course shell (unless alternate instructions have been provided by the instructor). For more information about logging into Canvas, visit eLearning Getting Started (<http://www.clark.edu/academics/eLearning/begin.php>). If a student has not completed first-week course requirements set by the instructor during the first five (5) days of the term, the student may be dropped from the course.

Note: Students who drop or are dropped by the college during the first five (5) days of the term will receive a full refund of tuition and fees, if due. Students are responsible for verifying all transactions regarding course registration and withdraw has occurred.

Dropping a Class and Withdrawal from the College

Students who find it necessary to withdraw from classes must do so formally. The withdrawal process can be completed online at www.clark.edu/current or in person using a Change of Registration form at the Enrollment Services Office. The dates for dropping and/or withdrawing from classes are available at www.clark.edu/enroll/registration/academic-calendar.php

- 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 online or at the Enrollment Services Office will be posted to the student's transcript with a withdrawal grade of "W" assigned to the class. Withdrawals

will not be accepted after the last day of the eighth (8th) week of the term.

- For courses with unusual start and end dates, withdrawals will not be accepted after 80% of the class meetings have occurred.
- If the student decides not to attend, it is their responsibility to withdraw from all classes. Withdrawals will not 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 MGB GI Bill Chapters 30, 31, 35, 1606, 1607, is as follows:

Financial Aid

| Attendance Status | Credit/Unit Hours Per Term |
|-----------------------------|----------------------------|
| 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

| Attendance Status | Credit/Unit Hours Per Term |
|----------------------------|----------------------------|
| 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

| Attendance Status | Credit/Unit Hours Per 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. Reference the course syllabus for absence management details.

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 Contact Information

To ensure receipt of important information, students must notify the college of any change of address, telephone, and preferred name. Offices that should be informed include Admissions, Financial Aid, and Registration. Student Update forms are available at the Enrollment Services Office and online at https://www.clark.edu/current_students/.

Tuition and Fees

The first tuition due date is three weeks before the quarter begins. Due dates are on a weekly cycle:

- Students can verify the amount of tuition and the due date by viewing their schedule at https://www.clark.edu/current_students/.
- Students who register Saturday through Friday must pay tuition and fees no later than the following Monday by 5:00 p.m.
- If Monday happens to be a holiday, payment is due on Tuesday by 5:00 p.m.
- Students who register after the 10th day of the quarter (8th day of summer quarter) must pay tuition by the end of the same business day on which they register (5:00 p.m.).

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.

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

- A tuition deadline exception has been activated on the student account.
- 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 permitting in compliance with Washington State Regulations.

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 ¹

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

¹ These fees are refundable on the same basis as tuition.

Technology Fee ¹

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.

¹ 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 (including the associated ISBN) 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 (<https://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 http://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 circumstances that prevent a student from withdrawing within the established guidelines. Students receiving financial aid should contact the Financial Aid office as soon as possible to discuss the impact of requesting an exception 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 (-).

| Letter Grade | Grade Point |
|--------------|---|
| 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 |
| 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/Unit Hrs Attempted | Grade | Grade Points Earned |
|------------------------------|----------|--------------------------------|
| 5 | B+ = 3.3 | 16.5 |
| 3 | C = 2.0 | 6.0 |
| 8 Total Credits/Units | | 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 impact Financial Aid funding, please refer to the Satisfactory Progress Policy at <http://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 from 100 or 200 level courses taken for pass/no pass will be allowed toward the Associate in Arts degree, Associate in Science degree, the Associate in Applied Science degree, the Associate in Applied Technology degree, or Bachelors of Applied Science. 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

Students may repeat a course taken at Clark College in order to improve their skills or the course grade. All course repeats must comply with the Procedures for Repeating a Course.

- The course repeat policy only applies to courses that are taken at Clark College.
- A course may be repeated only twice (taken a total of three times) unless otherwise specified in the college catalog.
- Credit for any course is earned only once (except for courses designed to be taken multiple times, as noted in the course catalog).

- Only the highest grade awarded will be used in computing the Clark College GPA.
- Each grade received will remain on the students transcript; the Registrar will place an "R" next to the other grade(s) received for that course.
- Courses must be repeated for a letter grade unless the course is offered only as pass/fail.
- The course repeat process DOES NOT apply to grade symbols: N, Y or S.
- The Clark College repeat policy may or may not be recognized by other institutions, at their sole discretion.
- To repeat a course, students must re-register and pay all necessary tuition and fees.

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 and their instructor. If a recording error has been made, it will be corrected. 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. 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, students 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 (<http://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.

SPECIAL INSTRUCTIONAL PROGRAMS AND LOCATIONS

Transitional Studies

Career and Academic Preparation (CAP)

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). Students can earn credit toward their HS21 diploma, prepare to take the GED test and improve their reading, writing and math skills to transition to college-level coursework. 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.

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.

Economic & Community Development

360-992-2939

Clark College Economic & Community Development is the region's premier provider of continuing education, offering customized training for local employers and community education programs for individual residents of Southwest Washington. This department is dedicated to building community through education, mature learning, and professional development, as well as forging partnerships in support of regional economic development.

Customized Learning and Development

360-992-2466

Customized Learning and Development delivers high-quality workforce training, leadership development, and technical and business analysis tools to manufacturing, healthcare, business, nonprofit, and government organizations. An expert team assesses business needs, analyzes human and technical resources available, and builds a customized plan to deliver the training and leadership needed to meet organizations' current objectives and future needs. Customized Learning and Development provides organizations with highly relevant training that directly affects the economy, employment opportunities, and workforce development in Southwest Washington.

Professional Development

360-992-2939

Professional Development offers regularly scheduled classes, workshops, and certification programs for individuals to develop knowledge, skills, and increase their productivity and value to employers. A wide range of topics, such as accounting, health care, programming, web design, graphic arts, Microsoft Office, and small business are available to everyone wanting to take that next step. One-day "fast track" learning sessions and flexible online classes are also available.

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 campus 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 adults. 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, science, 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.

STUDENT ORIENTATION

All new, transfer and returning students are required to complete a Student Orientation session (online or in person) or meet with an advisor 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 <http://www.clark.edu/enroll/admissions/orientation/index.php>.

STUDENT SUCCESS PROGRAMS

360-992-2830

studentsuccess@clark.edu

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

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 Penguin Alert for Student Success (PASS) 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)

Penguin Alert for Student Success (PASS)

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

PASS 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 Penguin Alert for Student Success are encouraged to contact their instructors, trained PASS staff and peer mentors, and financial sources for strategies to improve course grades and guidance on course withdrawals.

DEGREE & CERTIFICATE REQUIREMENTS

- General Information (p. 324)
- Transfer Degree Distribution List (p. 326)
- Transfer Degree Overview (p. 330)
- Career and Technical Degrees and Certificates Distribution List (p. 336)
- Bachelor of Applied Sciences (p. 341)
- Procedure for Requesting AP Credits (p. 342)
- Non-Traditional Credit (p. 343)
- Credit Hours and Credit Load (p. 345)

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 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 2.0. 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 2.0. 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 2.0. 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:

Bachelor 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.

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.

Online Learning Degrees

For information about Clark College eLearning programs and degrees, see Online Learning Degree Programs (<http://www.clark.edu/academics/eLearning/programs>)

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 3.4. 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 3.4 to 3.89, and the designation of “with highest honors” for a GPA of 3.9 or higher. Certificates of Proficiency will be granted the designation of “with merit” for a GPA of 3.4 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.

| Code | General Education Requirement |
|------|--|
| CA | Written Communication Skills (AAS and CP only) |
| CP | Computational Skills |
| CT | Written Communication Skills (AAT only) |
| 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 |
| PPI | Power, Privilege and Inequity |
| Q | Quantitative/Symbolic Reasoning |
| SE | Specified Elective |
| SS | Social Sciences |
| WC | Written Communication Skills (Transfer only) |

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.

TRANSFER DEGREE DISTRIBUTION LIST

Transfer Degree Distribution List Communication [C, WC, OC]

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. If none are listed, please select from the following list

| Code | Title | Credits/ Units |
|----------|---|-------------------|
| MATH 102 | COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION | 5 |
| MATH 103 | COLLEGE TRIGONOMETRY | 5 |
| MATH 104 | FINITE MATH WITH SUPPLEMENTAL INSTRUCTION | 5 |
| MATH 105 | FINITE MATHEMATICS | 5 |
| MATH 110 | COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION | 5 |
| MATH 111 | COLLEGE ALGEBRA | 5 |
| MATH 122 | MATH FOR ELEMENTARY TEACHERS | 5 |
| MATH 123 | MATH FOR ELEMENTARY TEACHERS | 5 |
| MATH 124 | MATH FOR ELEMENTARY TEACHERS | 5 |
| MATH 140 | CALCULUS FOR LIFE SCIENCES | 6 |
| MATH 147 | STATISTICS II | 3 |
| MATH 199 | COOPERATIVE WORK EXPERIENCE | 5 |
| MATH 215 | LINEAR ALGEBRA | 5 |
| MATH 221 | DIFFERENTIAL EQUATIONS | 5 |
| MATH&107 | MATH IN SOCIETY | 5 |
| MATH&146 | INTRODUCTION TO STATISTICS | 5 |
| MATH&148 | BUSINESS CALCULUS | 5 |
| MATH&151 | CALCULUS I | 5 |
| MATH&152 | CALCULUS II | 5 |
| MATH&153 | CALCULUS III | 5 |
| MATH&254 | CALCULUS IV | 5 |
| PHIL&117 | TRADITIONAL LOGIC | 5 |
| PHIL&120 | SYMBOLIC LOGIC | 5 |

Health & Physical Education [PE/HPE]

3 credits

Option One

| Code | Title | Credits/ Units |
|--|----------------------|-------------------|
| Complete two (2) credits/units of Health from the list below AND one (1) credit/unit of any college-level PE activity course | | |
| HLTH 100 | FOOD AND YOUR HEALTH | 2 |

| | | |
|---------------------|---------------------------|---|
| HLTH 101 | HEALTH FOR ADULT LIVING | |
| HLTH 103 | ENVIRONMENTAL HEALTH | |
| HLTH 104 | WEIGHT AND YOUR HEALTH | |
| HLTH 108 | HAPPINESS AND YOUR HEALTH | |
| HLTH 206 | HUMAN SEXUALITY | |
| HLTH 207 | WOMEN'S HEALTH | |
| HLTH 208 | MEN'S HEALTH | |
| HLTH 210 | MULTICULTURAL HEALTH | |
| HLTH 212 | CANNABIS AND YOUR HEALTH | |
| PE activity | | 1 |
| Total Credits/Units | | 3 |

Option Two

| Code | Title | Credits/ Units |
|---------------------|------------------|-------------------|
| HPE 258 | FITNESS-WELLNESS | 3 |
| or HPE 266 | MIND BODY HEALTH | |
| Total Credits/Units | | 3 |

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 |
|------------------------|---|---|
| American Sign Language | ASL& 121, ASL& 122, ASL& 123, ASL& 221, ASL& 222, ASL& 223 | ASL 125 |
| Art | ART 131, ART 151, ART 172, ART 220, ART 221, ART 222, ART 223, ART 225, ART 226, ART 250, ART 272 | ART 103, ART 104, ART 105, ART 110, ART 115, ART 116, ART 117, ART 118, ART 140, ART 141, ART 142, ART 145, ART 146, ART 173, ART 174, ART 180, ART 181, ART 182, ART 189, ART 190, ART 191, ART 203, ART 204, ART 208, ART 257, ART 258, ART 259, ART 260, ART 261, ART 262, ART 270, ART 271, ART 273, ART 274, ART 278, ART 290, ART 295, ART 296, ART 297 |
| Communication Studies | CMST&102, CMST&210, CMST&220, CMST&230 | CMST 216, CMST 240 |

| | | |
|------------|--|---|
| Drama | DRMA&101 | DRMA 140, DRMA 141, DRMA 142, DRMA 150, DRMA 152, DRMA 154, DRMA 250 |
| English | ENGL 131, ENGL 132, ENGL 133, ENGL 136, ENGL 140, ENGL 143, ENGL 145, ENGL 150, ENGL 156, ENGL 173, ENGL 175, ENGL 176, ENGL 254, ENGL 260, ENGL 261, ENGL 262, ENGL 264, ENGL 265, ENGL 266, ENGL 267, ENGL 268, ENGL 269, ENGL 270, ENGL 272 | ENGL 121, ENGL 125, ENGL 126, ENGL 127, ENGL 275, ENGL 276, ENGL 277 |
| Japanese | JAPN&121, JAPN&122, JAPN&123, JAPN&221, JAPN&222, JAPN&223 | |
| Journalism | JOUR 101, JOUR 111 | |
| Music | MUSC&104, MUSC&141, MUSC&142, MUSC&143, MUSC&231, MUSC&232, MUSC&233 | MUSC&121, MUSC&122, MUSC&123, MUSC&221, MUSC&222, MUSC&223 MUSC 101, MUSC 106, MUSC 110, MUSC 115, MUSC 137, MUSC 138, MUSC 139, MUSC 150, MUSC 151, MUSC 152, MUSC 153, MUSC 154, MUSC 155, MUSC 170, MUSC 171, MUSC 172, MUSC 173, MUSC 174, MUSC 175, MUSC 180, MUSC 181, MUSC 182, MUSC 183, MUSC 184, MUSC 185, MUSC 186, MUSC 193, MUSC 195, MUSC 196, MUSC 197, MUSC 201, MUSC 202, MUSC 210, MUSC 239, MUSC 250, MUSC 251, MUSC 252, MUSC 253, MUSC 254, MUSC 255, MUSC 270, MUSC 271, MUSC 272, MUSC 273, MUSC 274, MUSC 275, MUSC 280, MUSC 281, MUSC 282, MUSC 283, MUSC 284, MUSC 285, MUSC 290, MUSC 295, MUSC 296, MUSC 297 All MUSCA courses |
| Philosophy | PHIL&101, PHIL&120 PHIL 215, PHIL 216, PHIL 217, PHIL 240, PHIL 251, PHIL 280 | |

| | |
|-----------------|--|
| Spanish | SPAN&121, SPAN&122, SPAN 141 SPAN&123, SPAN&221, SPAN&222, SPAN&223 |
| Women's Studies | WS 101, WS 201, WS 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 | Courses |
|-----------------------|--|
| Addiction Counseling | ACED 101 |
| Anthropology | ANTH&204, ANTH&206, ANTH&215 |
| Communication Studies | CMST&230 |
| Economics | ECON&201, ECON&202 ECON 101, ECON 110, ECON 120 |
| English | ENGL 175 |
| Environmental Science | ENVS 231 |
| Geography | GEOG&100, GEOG&102, GEOG&200, GEOG&207 GEOG 205 |
| History | HIST&126, HIST&127, HIST&128, HIST&146, HIST&147, HIST&148, HIST&215 HIST 231, HIST 251, HIST 252 |
| Political Science | POLS&203 POLS 111, POLS 131, POLS 231 |
| Psychology | PSYC&100, PSYC&200 PSYC 203 |
| Sociology | SOC& 101, SOC& 201 SOC 121, SOC 131, SOC 220 |
| Women's Studies | WS 101, WS 201, WS 210, WS 220, WS 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.

| Department | Lab Course | Non-Lab Course |
|--------------|---|--|
| Anthropology | ANTH&215 | ANTH&245 |
| Astronomy | ASTR&101 | |
| Biology | BIOL&100, BIOL&160, BIOL&221, BIOL&222, BIOL&223, BIOL&241, BIOL&242, BIOL&251, BIOL&252, BIOL&253, BIOL&260 BIOL 101, BIOL 105, BIOL 150, BIOL 165, BIOL 168, BIOL 208, BIOL 224 | BIOL 139, BIOL 140, BIOL 141, BIOL 142, BIOL 143, BIOL 144, BIOL 145, BIOL 146, BIOL 147, BIOL 148, BIOL 149, BIOL 151, BIOL 152, BIOL 153, BIOL 154, BIOL 155, BIOL 156, BIOL 157, BIOL 158, BIOL 159, BIOL 161, BIOL 162, BIOL 163, BIOL 164, BIOL 166, BIOL 167, BIOL 169, BIOL 170, BIOL 171, BIOL 172, BIOL 173, BIOL 174, BIOL 175, BIOL 176, BIOL 177, BIOL 178, BIOL 179, BIOL 180, BIOL 181, BIOL 182, BIOL 183, BIOL 184, BIOL 185, BIOL 186, BIOL 187, BIOL 188, BIOL 189, BIOL 190, BIOL 191, BIOL 192, BIOL 193, BIOL 194, BIOL 195, BIOL 196, BIOL 197, BIOL 198, BIOL 199, BIOL 200, BIOL 201, BIOL 202, BIOL 203, BIOL 204, BIOL 205, BIOL 206, BIOL 207, BIOL 209, BIOL 210, BIOL 211, BIOL 212, BIOL 213, BIOL 214, BIOL 215, BIOL 216, BIOL 217, BIOL 218, BIOL 219, BIOL 220, BIOL 221, BIOL 222, BIOL 223, BIOL 224, BIOL 225, BIOL 226, BIOL 227, BIOL 228, BIOL 229, BIOL 230, BIOL 231, BIOL 232, BIOL 233, BIOL 234, BIOL 235, BIOL 236, BIOL 237, BIOL 238, BIOL 239, BIOL 240, BIOL 241, BIOL 242, BIOL 243, BIOL 244, BIOL 245, BIOL 246, BIOL 247, BIOL 248, BIOL 249, BIOL 250, BIOL 251, BIOL 252, BIOL 253, BIOL 254, BIOL 255, BIOL 256, BIOL 257, BIOL 258, BIOL 259, BIOL 260, BIOL 261, BIOL 262, BIOL 263, BIOL 264, BIOL 265, BIOL 266, BIOL 267, BIOL 268, BIOL 269, BIOL 270, BIOL 271, BIOL 272, BIOL 273, BIOL 274, BIOL 275, BIOL 276, BIOL 277, BIOL 278, BIOL 279, BIOL 280, BIOL 281, BIOL 282, BIOL 283, BIOL 284, BIOL 285, BIOL 286, BIOL 287, BIOL 288, BIOL 289, BIOL 290, BIOL 291, BIOL 292, BIOL 293, BIOL 294, BIOL 295, BIOL 296, BIOL 297, BIOL 298, BIOL 299, BIOL 300 |

| | | |
|-----------------------|---|---|
| Chemistry | CHEM&110, CHEM&121, CHEM&131, CHEM&151, CHEM&152, CHEM&153, CHEM&251, CHEM&252, CHEM&253 | CHEM&141, CHEM&142, CHEM&143, CHEM&241, CHEM&242, CHEM&243 |
| ENGINEERING | ENGR&104 | |
| Environmental Science | ENVS&101 ENVS 218 | ENVS 109 |
| Geology | GEOL&101 GEOL 102 | GEOL 218 |
| Meteorology | METR 101 | |
| Nutrition | | NUTR&101 |
| Physical Science | PHSC 101, PHSC 102, PHSC 104, PHSC 110 | PHSC 106 |
| Physics | PHYS&100, PHYS&124, PHYS&125, PHYS&126, PHYS&231, PHYS&232, PHYS&233 | PHYS&100, PHYS&134, PHYS&135, PHYS&136, PHYS&241, PHYS&242, PHYS&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, PPI, Q, SE, SS, WC] – 12 credits.

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

| Department | Courses |
|--------------------------------|--|
| Accounting | ACCT&201, ACCT&202, ACCT&203 only |
| Addiction Counseling | ACED 101 only |
| American Sign Language | |
| Anthropology | |
| Art | |
| Astronomy | |
| Biology | |
| Business | BUS& 101, BUS& 201; BUS 203, BUS 204, BUS 211 only |
| Chemistry | |
| Communication Studies | Excluding CMST 280 |
| Computer Science & Engineering | |
| Computer Technology | CTEC 121, CTEC 122 only |
| Drama | |
| Early Childhood Education | ECED&105, ECED&120; and EDUC&115 only |
| Economics | |

| | |
|---------------------------------|-------------------------------------|
| Education | EDUC&201 only |
| Engineering | |
| English | |
| Environmental Science | |
| Forensic Science | |
| Geography | |
| Geology | |
| Health | Excluding HLTH 120, HLTH 123 |
| Health & Physical Education | Excluding HPE 220, HPE 280, HPE 290 |
| History | |
| Human Services Substance Abuse | HSSA&101 |
| Japanese | |
| Journalism | JOUR 101, JOUR 111 only |
| Mathematics | |
| Meteorology | |
| Music | |
| Nutrition | |
| Philosophy | |
| Physical Education ¹ | |
| Physical Science | |
| Physics | |
| Political Science | |
| Psychology | |
| Sociology | |
| Spanish | |
| Women's Studies | |

¹ 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 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 disciplines²) – PHIL&101, MUSC&104, DRMA&101, or ENGL 140
For colleges that use History as a Humanities: HIST&146, HIST&147, HIST&148
- Social Science (10 credits in two different subject areas or disciplines) – PSYC&100, SOC& 101, POLS 231, POLS 111
For colleges that use History as a Social Science: HIST&146, HIST&147, HIST&148 HIST&126, HIST&127, HIST&128
- Natural Sciences (10 credits in two different subject areas or disciplines) – BIOL&100, BIOL&160 with lab, ASTR&101, ASTR&101 with lab, CHEM 106, CHEM&110 with lab, CHEM&121 with lab ENV&101, ENV&101 PHYS&100 with lab, 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).

TRANSFER DEGREE OVERVIEW

Associate in Arts (AA)

Associate in Arts – Major Related Program (MRP)

Associate in Fine Arts (AFA)

Associate in Science - Track 1 (AST1)

Associate in Science - Track 2 (AST2)

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

"Washington 45" - List of One Year Transfer Courses

General Transfer Degree Requirements

In addition to completing all of the major or distribution area requirements, students must also:

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

General Transfer Degree Credit Restrictions

- Cooperative Work Experience: No more than fifteen (15) credits may be applied to an associate degree.
- Course Challenge: Students may use credits earned from successful course challenges toward their degree or certificate, but the credits will not meet the academic residency requirements.
- Standardized Tests: Advanced Placement (AP), College Level Examination Program (CLEP), 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.
- Pass/Fail Grading Option: Sixty (60) credits maximum in courses with Pass/Fail grading option can apply toward the degree.
- 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.
- Special Projects: No more than fifteen (15) credits in Special Projects will be allowed toward the Associate in Arts (AA) degree.

General Information on the 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 grade point average (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). A grade of "D-" may not apply toward a completion of a transfer degree or Bachelor of Applied Science at Clark College. 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.

Associate in Arts (AA)-Direct Transfer Agreement (DTA)

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 General Education Requirements Communication Skills [C, OC, WC]

10 credits

To fulfill the Communications Skills requirement for the AA-DTA transfer degree, students must complete ENGL& 101 for five (5) credits and another five (5) credit English composition course or take another three (3) credit English composition course and take a qualifying five (5) credit Oral Communication (OC) studies course.

Quantitative Skills/Symbolic Reasoning Skills [Q]

5 credits

To fulfill the quantitative skills requirement for the AA general transfer degree, students must complete five (5) credits of college level mathematics (Q) or symbolic reasoning (Q) coursework.

Health & Physical Education [HE, HPE, PE]

3 credits

To fulfill the Health and Physical Education requirements for the AA general transfer degree, students must complete two (two) qualifying credits for Health [HE] and one (1) credit of any college-level Physical Education [PE] activity course, or HPE 258 or HPE 266.

Humanities [HA, HB]

15 credits

To fulfill the Humanities requirement for the AA general transfer degree students must complete 15 credits of humanities coursework from at least two (2) subject areas. Students may include no more than ten (10) credits from any one subject area. A maximum of five (5) credits of the "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

To fulfill the Social Science requirements for the AA general transfer degree students must complete fifteen (15) credits of social science

coursework from at least three (3) subject areas. Students may include no more than ten (10) credits from any one subject area.

Natural Sciences [NS]

15 credits

To fulfill the natural Sciences requirement for the AA general transfer degree students must complete fifteen (15) credits of natural science coursework from at least two subject areas. Students may include no more than ten (10) credits from one subject area. Students must include at least one (1) lab science.

Specified Elective Requirements [SE]

12 credits

To fulfill the Specified Elective requirements for the AA general transfer degree students must complete twelve (12) credits of Specified Electives. A maximum of two (2) credits in Physical Education (PE) activity can apply.

General Electives [GE]

15 credits

Additional credits may be taken at college level to reach the minimum ninety (90) credit total for the AA general transfer degree. Note: Coursework in CAP, ESL, or FLPC cannot apply to the AA transfer degree.

Oral Communication [OC]

Clark students must complete either CMST&210, CMST&220, or CMST&230 to fulfill the Oral Communication requirement. 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 or General Elective.

College Preparation (COLL)

Clark students must complete College 101 (COLL 101). Students may apply this course in General Electives for the AA general transfer degree.

AA-DTA General Education Credit Restrictions

- Physical Education Activity: Three (3) credits maximum in PE activity can apply toward the degree.
- A course can apply toward the only one (1) distribution requirement (i.e. Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences, and Natural Sciences). The exception is for the Oral communication and College 101 requirements, which are local degree requirements. When meeting these requirements, 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 Specified or General Elective Requirements.

Associate in Arts - Major Related Programs (AA - DTA/MRP)

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

to prepare for the following majors at various universities in Washington. Clark College offers the following Associate in Arts – DTA/MRP¹ in:

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

¹ For specific program requirements please see the programs section of the catalog.

AA- DTA/MRP General Education Requirements

The MRP degrees listed above have slightly different graduation requirements than other Clark transfer degrees because the curriculum was created via an articulation agreement between Washington two-year and four-year schools. Most notably, DTA/MRP degrees differ from the Associate in Arts degree in the following ways:

- Health and Physical Education [HE,PE,HPE] is not required;
- College Preparation (COLL 101) is not required;
- Oral Communication [OC] is not required;
- Social Sciences [SS] may be completed with two (2) subject areas;
- Specific coursework is identified and required for program completion.

Clark students are encouraged to take Health and Physical Education [HPE], College 101 [COLL] and Oral Communication [OC] courses, where appropriate, in case their degree choice changes.

Associate in Fine Arts (AFA)

This transfer preparation degree is designed for students planning to transfer to a senior institution to pursue a bachelor's degree program (BA or BFA) in Fine Arts. The degree programs focus on coursework specific to the intended major area of study at the senior institution. While coursework in general education, social sciences, and natural sciences is included, additional coursework in these areas will be required at the senior institution. It is important for students to meet with program-specific advisors to determine an appropriate educational plan. The AFA does NOT adhere to the direct-transfer agreement, so students need to be aware of requirements of the receiving senior institution. Currently, Clark College offers two (2) Associate in Fine Arts degrees: Graphic Design and Studio Art. Please contact the Art Department for advising information.

AFA General Education Requirements Communication Skills [C]

5 credits

To fulfill the communication skills requirement for the AFA degree students must complete ENGL&101 for five (5) credits. Students who complete ENGL&101 or its equivalent at less than five (5) credits may complete the communications requirement by completing any of the courses (or their appropriate transfer equivalents) in Written [C] or Oral Communications [OC] as defined within the Associate of Arts distribution requirements.

Quantitative Skills/Symbolic Reasoning Skills [Q]

5 credits

To fulfill the quantitative skills requirement for the AFA degree, students must complete five (5) credits of college level mathematics.

Health & Physical Education [HE, HPE, PE]

3 credits

To fulfill the Health and Physical Education requirement for the AFA degree, students must complete two (2) qualifying credits of Health and one (1) credit of any college-level Physical Education [PE] activity course, or HPE 258 or HPE 266.

Humanities [HA]

5 credits

To fulfill the Humanities requirement for the AFA degree students must complete five (5) credits of coursework from the Humanities [HA] Associate of Arts distribution list. Courses must be List A courses. The course completed cannot be part of the AFA major requirements.

Social Sciences [SS]

5 credits

To fulfill the Social Science requirement for the AFA degree students must complete five (5) credits of coursework from the Social Sciences [SS] Associate of Arts distribution list. The course completed cannot be part of the AFA major requirements.

Natural Sciences [NS]

5 credits

To fulfill the Natural Science requirement for the AFA degree students must complete five (5) credits of coursework from the Natural Sciences Associate of Arts distribution list. The course completed must include a lab. The course completed cannot be part of the AFA major requirements.

Major Area Requirements

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

Associate in Science – Transfer (AST)

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

Associate in Science – Track 1 (AST1)

The AST1 degree track is for students intending to transfer into programs in:

- Biological Sciences
- Chemistry
- Earth Science

- Environmental/Resources Sciences
- Geology

AST1 General Education Requirements Communication Skills [C]

5 credits

To fulfill the communication skills requirement for the AST1 degree students must complete ENGL&101 for five (5) credits. Students who complete ENGL&101 or its equivalent at less than five (5) credits may complete the communications requirement by completing any of the courses (or their appropriate transfer equivalents) in Written [C] or Oral Communications [OC] as defined within the Associate of Arts distribution requirements.

Quantitative Skills/Symbolic Reasoning Skills

10 credits

To fulfill the Quantitative Skills requirement for the AST1 degree students must complete MATH&151 and MATH&152, or Math courses that have MATH&152 as a prerequisite.

Health & Physical Education [HE, HPE, PE]

3 credits

To fulfill the Health and Physical Education requirement for the AST1 degree, students must complete two (2) qualifying credits of Health [HE] and one (1) credit of any college-level Physical Education [PE] activity course, or HPE 258 or HPE 266.

Humanities & Social Sciences [HA,HB, SS]

15 credits

To fulfill the Quantitative Skills requirement for the AST1 degree students must complete five (5) credits of coursework from Humanities [HA,HB], five (5) credits of coursework from Social Sciences [SS], 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 maximum of five (5) credits of the "B" list coursework may be applied.

Pre-Major Sequence

45 to 50 credits

All students planning to earn the AST1 degree are required to complete the following course sequences. The sequences taken are dependent on the major of the student. Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with intended transfer school to select sequences.

Chemistry Sequence

15 credits

To fulfill the chemistry sequence requirement students may take either.

| Code | Title | Credits/ Units |
|------------------------|---|-------------------|
| Option One | | |
| CHEM&141 & CHEM&151 | GENERAL CHEMISTRY I and GENERAL CHEMISTRY LABORATORY I | 5 |

| | | | |
|------------------------|---|---|--|
| CHEM&142 & CHEM&152 | GENERAL CHEMISTRY II and GENERAL CHEMISTRY LABORATORY II | 5 | mathematics consisting of courses normally taken for science majors to better prepare for major. |
| CHEM&143 & CHEM&153 | GENERAL CHEMISTRY III and GENERAL CHEMISTRY LABORATORY III | 6 | |
| Option Two | | | |
| CHEM&241 & CHEM&251 | ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY LABORATORY I | 5 | |
| CHEM&242 & CHEM&252 | ORGANIC CHEMISTRY II and ORGANIC CHEMISTRY LABORATORY II | 5 | |
| CHEM&243 & CHEM&253 | ORGANIC CHEMISTRY III and ORGANIC CHEMISTRY LABORATORY III | 6 | |

Biology or Physics Sequence

5 credits

To fulfill the biology or physics sequence requirement students may take either:

| Code | Title | Credits/ Units |
|--------------------------------------|--|-------------------|
| Option One | | |
| BIOL&222 | MAJORS CELL/MOLECULAR | 5 |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION | 5 |
| BIOL&223 | MAJORS ORGANISMAL PHYS | 5 |
| Option Two ¹ | | |
| PHYS&124 & PHYS&134 & PHYS 091 | GENERAL PHYSICS LAB I and GENERAL PHYSICS I and PHYSICS CALCULATIONS | 6 |
| PHYS&125 & PHYS&135 & PHYS 092 | GENERAL PHYSICS LAB II and GENERAL PHYSICS II and PHYSICS CALCULATIONS | 6 |
| PHYS&126 & PHYS&136 & PHYS 093 | GENERAL PHYSICS LAB III and GENERAL PHYSICS III and PHYSICS CALCULATIONS | 6 |

¹ Please note that PHYS 091, PHYS 092, and PHYS 093 do not count toward the credit total for transfer degrees (AST1, AST2, DTAMRP or AADTA) degrees.

Additional Mathematics Courses

5 or 6 credits

To fulfill the additional mathematics requirement students may take either:

| Code | Title | Credits/ Units |
|-------------------------|--|-------------------|
| MATH&146 or MATH&153 | INTRODUCTION TO STATISTICS CALCULUS III | 5 |

Students should consult with intended transfer school to select correct path.

Science Electives

10 to 15 credits

Complete an additional ten (10) to fifteen (15) credits (preferably in a two or three-term sequence) in physics, geology, organic chemistry, biology or

Electives

Students should complete sufficient additional college-level credits so that total credits earned is at least 90 term credits. These remaining courses may include prerequisites for major courses, additional major coursework, or specific general education or other university requirements, as approved by the advisor.

Associate in Science – Track 2 (AST2)

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

AST2 - Concentration Options

- Atmospheric Science
- Computer Science
- Engineering
- Physics

AST2 – MRP

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

General Education Requirements

Communication Skills [C]

5 credits

To fulfill the communication skills requirement for the AST1 degree students must complete ENGL&101 for five (5) credits. Students who complete ENGL&101 or its equivalent at less than five (5) credits may complete the communications requirement by completing any of the courses (or their appropriate transfer equivalents) in Written [WC] or Oral Communications [OC] as defined within the Associate of Arts distribution requirements.

Quantitative Skills/Symbolic Reasoning Skills

10 credits

To fulfill the Quantitative Skills requirement for the AST2 degree students must complete MATH&151 and MATH&152, or Math courses that have MATH&152 as a prerequisite.

Health & Physical Education [HE, HPE, PE]

3 credits

To fulfill the Health and Physical Education requirement for the AST2 degree, students must complete two (2) qualifying credits of Health [HE] and one (1) credit of any college-level PE [PE] activity course, or HPE 258 or HPE 266.

Humanities & Social Sciences [HA,HB, SS]

15 credits

To fulfill the Quantitative Skills requirement for the AST2 degree students must complete five (5) credits of coursework from Humanities [HA,HB], five (5) credits of coursework from Social Sciences [SS], 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 maximum of five (5) credits of "B" list coursework may be applied.

Pre-Major Sequence

25 credits

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

Physics Sequence

15 credits

| Code | Title | Credits/ Units |
|--------------------------------------|---|-------------------|
| Option One ¹ | | |
| PHYS&124 & PHYS&134 & PHYS 091 | GENERAL PHYSICS LAB I and GENERAL PHYSICS I and PHYSICS CALCULATIONS | 6 |
| PHYS&125 & PHYS&135 & PHYS 092 | GENERAL PHYSICS LAB II and GENERAL PHYSICS II and PHYSICS CALCULATIONS | 6 |
| PHYS&126 & PHYS&136 & PHYS 093 | GENERAL PHYSICS LAB III and GENERAL PHYSICS III and PHYSICS CALCULATIONS | 6 |
| Option Two ¹ | | |
| PHYS&231 & PHYS&241 & PHYS 094 | ENGINEERING PHYSICS LAB I and ENGINEERING PHYSICS I and PHYSICS CALCULATIONS | 6 |
| PHYS&232 & PHYS&242 & PHYS 095 | ENGINEERING PHYSICS LAB II and ENGINEERING PHYSICS II and PHYSICS CALCULATIONS | 6 |
| PHYS&233 & PHYS&243 & PHYS 096 | ENGINEERING PHYSICS LAB III and ENGINEERING PHYSICS III and PHYSICS CALCULATIONS ¹ | 6 |

¹ Please note that PHYS 091, PHYS 092, PHYS 093, PHYS 094, PHYS 095, AND PHYS 096 do not count toward the credit total for transfer degrees (AST1, AST2, DTAMRP or AADTA) degrees.

² Calculus based required for engineering majors.

Chemistry with Lab

5 credits

CHEM&141, CHEM&151 (required for engineering majors); other majors should select 5 credits of science based on specific faculty or program advising.

Additional Mathematics Coursework

5 credits

| Code | Title | Credits/ Units |
|-------------------------|--|-------------------|
| MATH&146 or MATH&153 | INTRODUCTION TO STATISTICS CALCULUS III | 5 |

Elective Requirements

35 credits

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

Engineering Majors should choose from the courses listed below, in consultation with an advisor, based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.:

| Department | Courses |
|--------------------------------|--|
| Chemistry | CHEM&142, CHEM&143, CHEM&152, CHEM&153, CHEM&241, CHEM&242, CHEM&243, CHEM&251, CHEM&252, CHEM&253 |
| Computer Science & Engineering | CSE 101, CSE 120, CSE 121, CSE 215, CSE 222, CSE 223, CSE 224, CSE 290 |
| Engineering | ENGR&104, ENGR&215, ENGR&204, ENGR&214, ENGR&224, ENGR&225 ENGR 101, ENGR 107, ENGR 109, ENGR 113, ENGR 115, ENGR 120, ENGR 121, ENGR 150, ENGR 221, ENGR 239, ENGR 240, ENGR 250, ENGR 252, ENGR 253, ENGR 270, ENGR 280 |
| Math | MATH&254 MATH 215, MATH 221 |

Non-engineering Majors should choose from the courses listed below, in consultation with an advisor, based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend:

| Department | Courses |
|--------------------------------|--|
| Biology | BIOL&100, BIOL&221, BIOL&222, BIOL&223, BIOL&251, BIOL&252, BIOL&253, BIOL&260 BIOL 101, BIOL 164, BIOL 165, BIOL 167, BIOL 168, BIOL 208, BIOL 224 |
| Chemistry | CHEM&142, CHEM&143, CHEM&152, CHEM&153, CHEM&241, CHEM&242, CHEM&243, CHEM&251, CHEM&252, CHEM&253 |
| Computer Science & Engineering | CSE 120, CSE 121, CSE 215, CSE 222, CSE 223, CSE 224, CSE 290 |

| | |
|-----------------------|--|
| Engineering | ENGR&104, ENGR&215, ENGR&204, ENGR&214, ENGR&224, ENGR&225 ENGR 101, ENGR 107, ENGR 109, ENGR 113, ENGR 115, ENGR 120, ENGR 121, ENGR 150, ENGR 221, ENGR 239, ENGR 240, ENGR 250, ENGR 252, ENGR 253, ENGR 270, ENGR 280 |
| Environmental Science | ENVS&101 ENVS 109, ENVS 218, ENVS 221 |
| Math ¹ | MATH&153, MATH&254 MATH 203, MATH 204, MATH 215, MATH 221 |
| Physics | PHYS&231, PHYS&232, PHYS&233, PHYS&241, PHYS&242, PHYS&243 |

¹ The pre-calculus courses (MATH 102, MATH 103, MATH 110, and/or MATH 111) might also be used as electives if these courses had to be taken in preparation for the calculus sequence.

Year Transfer List” of general education courses (not all offered at Clark College):

- 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) – PHIL&101, MUSC&104, DRMA&101, CMST&210 or ENGL 254
- For colleges that use History as a Humanities HIST&126, HIST&127, HIST&128, HIST&146, HIST&147, HIST&148
- Social Science (10 credits in two different subject areas or disciplines) – PSYC&100, SOC& 101, POLS&203, POLS 111
- For colleges that use History as a Social Science: HIST&126, HIST&127, HIST&128, HIST&146, HIST&147, HIST&148
- Natural Sciences (10 credits in two different subject areas or disciplines) – BIOL&100, BIOL&160 with lab ASTR&101 with lab, CHEM 106, CHEM&110 with lab, CHEM&121 with lab, CHEM&139, ENVS 109, ENVS&101, PHYS&100 with lab, GEOL&101 with lab.
- Additional 5 credits in a different discipline can be taken from any category listed above.

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

CAREER AND TECHNICAL DEGREES AND CERTIFICATES DISTRIBUTION LIST

Professional 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 (CC)
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 grade point average (GPA) of 2.0 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" (2.0) 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 twenty five percent (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.

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 [CA, CT]

| Department | AAS - 6 credits/ units minimum (CA) | AAT - 5 credits/ units minimum (CT) | CP - 3 credits/ units minimum (CA) |
|---------------------------------------|---|---|--|
| Business | BUS 211 | BUS 211 | BUS 211 |
| Business Technology | BTEC 107 | BTEC 107 | BTEC 106, BTEC 107 |
| Communication Studies ¹ | CMST&210 ¹ , CMST&220 ¹ , CMST&230 ¹ | | |

| | | | |
|-----------------------------------|------------------------------------|-----------------------|---|
| English | ENGL 098, ENGL 108, ENGL 110 | ENGL&101, ENGL&235 | ENGL 097, ENGL 098, ENGL 108, ENGL 110 |
| | ENGL&101, ENGL&102, ENGL&235 | | ENGL&101, ENGL&235 |
| Management | MGMT 107 | | MGMT 107 |
| Professional Technical Writing | PTWR 135 | PTWR 135 | PTWR 135 |

¹ Communication Studies courses cannot be counted toward the first three (3) credits of Communication Skills [CA,CT].

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

Completion of ENGL 098 or equivalent with a grade of "C" or better (2.0) or placement into ENGL&101.

Health & Physical Education [HE, HPE, PE, PEDNC, PEMAR] - 3 credits

Select three credits/units from either Option One or Option Two:

| Code | Title | Credits/ Units |
|------|-------|-------------------|
|------|-------|-------------------|

Option One

Select two credits/units from the following: 2

| | | |
|----------|---------------------------|--|
| HLTH 100 | FOOD AND YOUR HEALTH | |
| HLTH 101 | HEALTH FOR ADULT LIVING | |
| HLTH 103 | ENVIRONMENTAL HEALTH | |
| HLTH 104 | WEIGHT AND YOUR HEALTH | |
| HLTH 108 | HAPPINESS AND YOUR HEALTH | |
| HLTH 206 | HUMAN SEXUALITY | |
| HLTH 207 | WOMEN'S HEALTH | |
| HLTH 208 | MEN'S HEALTH | |
| HLTH 210 | MULTICULTURAL HEALTH | |
| HLTH 212 | CANNABIS AND YOUR HEALTH | |

Select one from the following: 1

College-level Physical Activity course

Option Two

Select one from the following: 3

| | | |
|---------|-------------------------------|--|
| HPE 220 | INDUSTRIAL HEALTH AND FITNESS | |
| HPE 258 | FITNESS-WELLNESS | |
| HPE 266 | MIND BODY HEALTH | |

Computational Skills [CP]

| Department | AAS - 3 credits/ units minimum | AAT - 5 credits/ units minimum | CP - 3 credits/ units minimum |
|--|-----------------------------------|-----------------------------------|----------------------------------|
| Business | BUS 102 | BUS 102 | BUS 102 |
| Business Technology Medical Office | BMED 103, BMED 105 | BMED 103, BMED 105 | BMED 103 |
| Chemistry | | | CHEM 095 |

| | | | |
|--------------------------------------|---|--|---|
| Computer Science & Engineering | CSE 121, CSE 222, CSE 223, CSE 224 | | CSE 121, CSE 222, CSE 223, CSE 224 |
|--------------------------------------|---|--|---|

| | | | |
|------------------------|----------|----------|----------|
| Computer Technology | CTEC 121 | CTEC 121 | CTEC 121 |
|------------------------|----------|----------|----------|

| | | | |
|--------------------------|--|--|----------|
| Environmental Science | | | ENVS 135 |
|--------------------------|--|--|----------|

| | | | |
|-------------|---|--|---|
| Mathematics | All MATH/ MATH& courses numbered 030 or higher EXCEPT MATH 199 or MATH 290 | MATH 102, MATH 103, MATH 104, MATH 105, MATH 110, MATH 111 MATH&107, MATH&146 | All MATH/ MATH& courses numbered 030 or higher EXCEPT MATH 199 or MATH 290 |
|-------------|---|--|---|

Or any MATH/
MATH& course
for which these
courses are a
prerequisite

| | | | |
|--|----------|----------|----------|
| Professional Technical Computer Skills | PTCS 110 | PTCS 110 | PTCS 110 |
|--|----------|----------|----------|

A placement into or eligibility for MATH 089, MATH 090 or MATH 092 higher will satisfy this requirement for certain designated programs.

Human Relations [HR]

| Department | AAS - 3 credits/ units minimum | AAT - 5 credits/ units minimum | CP - 3 credits/ units minimum |
|-------------------------|--|--|--|
| Addiction Counseling | ACED 101, ACED 201 | ACED 101, ACED 201 | ACED 101, ACED 201 |
| Business Technology | BTEC 148 | BTEC 148 | BTEC 148 |
| Business Medical | BMED 166, BMED 225, BMED 226 | BMED 166, BMED 225, BMED 226 | BMED 166, BMED 225, BMED 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 |
| Human Development | HDEV 103, HDEV 105, HDEV 123, HDEV 155, HDEV 175, HDEV 186, HDEV 195, HDEV 198, HDEV 200 | HDEV 103, HDEV 105, HDEV 123, HDEV 155, HDEV 175, HDEV 186, HDEV 195, HDEV 198, HDEV 200 | HDEV 103, HDEV 105, HDEV 123, HDEV 155, HDEV 175, HDEV 186, HDEV 195, HDEV 198, HDEV 200 |

| | | | |
|-----------------|--|--|--|
| Management | MGMT 101, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 122, MGMT 125, MGMT 128, MGMT 132 | MGMT 101, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 122, MGMT 125, MGMT 128, MGMT 132 | MGMT 101, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 122, MGMT 125, MGMT 128, MGMT 132 |
| Psychology | PSYC&100, PSYC&200 PSYC 203 | PSYC&100, PSYC&200 PSYC 203 | PSYC&100, PSYC&200 PSYC 203 |
| Sociology | SOC& 101, SOC& 201 SOC 121, SOC 131, SOC 220 | SOC& 101, SOC& 201 SOC 121, SOC 131, SOC 220 | SOC& 101, SOC& 201 SOC 121, SOC 131, SOC 220 |
| Women's Studies | WS 101 | WS 101 | WS 101 |

Humanities [HA, HB] - 3 credits for AAS only

| Department | HA | HB |
|------------------------|--|--|
| American Sign Language | ASL& 121, ASL& 122, ASL& 123, ASL& 221, ASL& 222, ASL& 223 ASL 125 | |
| Art | ART 131, ART 151, ART 172, ART 220, ART 221, ART 222, ART 223, ART 225, ART 226, ART 250, ART 272 | ART 103, ART 104, ART 105, ART 110, ART 115, ART 116, ART 117, ART 118, ART 140, ART 141, ART 142, ART 145, ART 146, ART 173, ART 174, ART 180, ART 181, ART 182, ART 189, ART 190, ART 191, ART 203, ART 204, ART 208, ART 257, ART 258, ART 259, ART 260, ART 261, ART 262, ART 270, ART 271, ART 273, ART 274, ART 278, ART 290, ART 295, ART 296, ART 297 |
| Communication Studies | CMST&102, CMST&210, CMST&220, CMST&230 CMST 216, CMST 240 | |
| Drama | DRMA&101 DRMA 154 | DRMA 140, DRMA 141, DRMA 142, DRMA 150, DRMA 152, DRMA 250 |

| | | |
|------------|---|--|
| English | ENGL 131, ENGL 132, ENGL 133, ENGL 136, ENGL 140, ENGL 143, ENGL 145, ENGL 150, ENGL 156, ENGL 173, ENGL 175, ENGL 176, ENGL 254, ENGL 260, ENGL 261, ENGL 262, ENGL 264, ENGL 265, ENGL 266, ENGL 267, ENGL 268, ENGL 269, ENGL 270, ENGL 272 | ENGL 121, ENGL 125, ENGL 126, ENGL 127, ENGL 275, ENGL 276, ENGL 277 |
| Japanese | JAPN&121, JAPN&122, JAPN&123, JAPN&221, JAPN&222, JAPN&223 | |
| Journalism | JOUR 101, JOUR 111 | |
| Music | MUSC&104, MUSC&141, MUSC&142, MUSC&143, MUSC&231, MUSC&232, MUSC&233 | MUSC&121, MUSC&122, MUSC&123, MUSC&221, MUSC&222, MUSC&223 MUSC 101, MUSC 106, MUSC 110, MUSC 115, MUSC 121, MUSC 122, MUSC 123, MUSC 137, MUSC 138, MUSC 139, MUSC 150, MUSC 151, MUSC 152, MUSC 153, MUSC 154, MUSC 155, MUSC 170, MUSC 171, MUSC 172, MUSC 173, MUSC 174, MUSC 175, MUSC 180, MUSC 181, MUSC 182, MUSC 183, MUSC 184, MUSC 185, MUSC 186, MUSC 193, MUSC 195, MUSC 196, MUSC 197, MUSC 201, MUSC 202, MUSC 210, MUSC 239, MUSC 250, MUSC 251, MUSC 252, MUSC 253, MUSC 254, MUSC 255, MUSC 270, MUSC 271, MUSC 272, MUSC 273, MUSC 274, MUSC 275, MUSC 280, MUSC 281, MUSC 282, MUSC 283, MUSC 284, MUSC 285, MUSC 290, MUSC 295, MUSC 296, MUSC 297 All MUSCA courses |
| Philosophy | PHIL&101, PHIL&120 PHIL 215, PHIL 216, PHIL 217, PHIL 240, PHIL 251, PHIL 280 | |

| | |
|-----------------|---|
| Spanish | SPAN&121, SPAN&122, SPAN 141 SPAN&123, SPAN&221, SPAN&222, SPAN&223 |
| Women's Studies | WS 101, WS 201, WS 210 |

Social Sciences [SS] - 3 credits for AAS only

| Department | Courses |
|-----------------------|--|
| Addiction Counseling | ACED 101 |
| Anthropology | ANTH&204, ANTH&206, ANTH&215 |
| Communication Studies | CMST&230 |
| Economics | ECON&201, ECON&202 ECON 101, ECON 110, ECON 120 |
| English | ENGL 175 |
| Environmental Science | ENVS 231 |
| Geography | GEOG&100, GEOG&102, GEOG&200, GEOG&207 GEOG 205 |
| History | HIST&126, HIST&127, HIST&128, HIST&146, HIST&147, HIST&148, HIST&215 HIST 231, HIST 251, HIST 252 |
| Political Science | POLS&203 POLS 111, POLS 131, POLS 231 |
| Psychology | PSYC&100, PSYC&200 PSYC 203 |
| Sociology | SOC& 101, SOC& 201 SOC 121, SOC 131, SOC 220 |
| Women's Studies | WS 101, WS 201, WS 210, WS 220, WS 225 |

Natural Sciences [NS] - 3 credits for AAS only

| Department | Lab Course | Non-Lab Course |
|--------------|--|--|
| Anthropology | ANTH&215 | ANTH&245 |
| Astronomy | ASTR&101 | |
| Biology | BIOL&100, BIOL&160, BIOL&221, BIOL&222, BIOL&223, BIOL&241, BIOL&242, BIOL&251, BIOL&252, BIOL&253, BIOL&260 BIOL 101, BIOL 105, BIOL 150, BIOL 165, BIOL 168, BIOL 208, BIOL 224 | BIOL 139, BIOL 140, BIOL 141, BIOL 142, BIOL 143, BIOL 145, BIOL 164, BIOL 167, BIOL 180 |
| Chemistry | CHEM&110, CHEM&121, CHEM&131, CHEM&151, CHEM&152, CHEM&153, CHEM&251, CHEM&252, CHEM&253 | CHEM&141, CHEM&142, CHEM&143, CHEM&241, CHEM&252, CHEM&243 CHEM 095 |

| | |
|-----------------------|--|
| Engineering | ENGR&104 |
| Environmental Science | ENVS&101 ENVS 109, ENVS 218 |
| Geology | GEOG&101, GEOG&103 GEOG 218 GEOG 102 |
| Meteorology | METR 101 |
| Nutrition | NUTR&101 |
| Physical Science | PHSC 101, PHSC 102, PHSC 104, PHSC 110 PHSC 106 |
| Physics | PHYS& 101, PHYS&124, PHYS&100, PHYS&134, PHYS&125, PHYS&126, PHYS&135, PHYS&136, PHYS&231, PHYS&232, PHYS&241, PHYS&242, PHYS&233 PHYS&243 PHYS 090 |

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 grade point average (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 (CC)

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:

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.

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, and cooperative work experience, 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, or special projects, 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.

BACHELOR OF APPLIED SCIENCES

General Degree Requirements

Except for the BAS in Dental Hygiene, in addition to completing a two year degree (AA, AFA, AAS, AAT, AAS-T, AST1, AST2) students must also:

Complete all of the major or distribution area requirements:

- Complete a minimum of one hundred and eighty (180) college-level credits
- Minimum of sixty (60) upper division (300 or 400 level) credits
- Maintain a minimum cumulative college-level grade point average (GPA) of 2.00 or higher
- Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.

General Degree Credit Restrictions

- Course Challenge: Students may use credits earned from successful course challenges toward their degree or certificate, but the credits will not meet the academic residency requirements.
- Standardized Tests: Advanced Placement (AP), College Level Examination Program (CLEP), 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.
- Pass/Fail Grading Option: Sixty (60) credits maximum in courses with Pass/Fail grading option can apply toward the degree.
- 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.
- Special Projects: No more than fifteen (15) credits in Special Projects will be allowed toward the Bachelor of Applied Science (BAS) degree.

General Information on the 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 grade point average (GPA). Courses completed with a grade of "D" or above may be accepted in transfer.

A grade of "D-" may not apply toward a completion of a Bachelor of Applied Science at Clark College. 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 BAS Degree Requirements

1. Students must earn a cumulative grade point average (GPA) of at least 2.0, as calculated by the degree awarding institution. Please refer to specific program for additional GPA requirements.
2. The general education courses will include courses earned at either/ both the associate degree and/or applied bachelor's degree level, based on the total required 180 term hours of credit.

Basic Requirements

Communication Skills

(10 credits)

Must include at least two communication courses to include a minimum of one English composition course; e.g. ENGL&101. Remaining credits may be an additional composition course or designated writing-intensive courses or courses in basic speaking skills (e.g. speech, rhetoric, or debate).

Quantitative/Symbolic Reasoning Skills

(5 credits)

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

- or -

- 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.

Distribution Requirements

Humanities

(10 credits)

A maximum of five (5) credits of List B (performance) Humanities coursework can be applied. A maximum of five (5) credits of 100-level world language can be applied.

Social Science

(10 credits)

Natural Sciences

(10 credits)

At least five (5) credits in physical, biological and/or earth sciences. Shall include at least one laboratory course.

Additional General Education Courses

(15 credits)

Remaining general education courses needed to achieve the required 60 credits shall be selected from the Basic and Distribution Requirements listed above.

300 and 400 Level General Education Courses

In addition to 100/200 level courses, colleges may elect to develop 300/400 level general education courses that best suit the curriculum needed of the baccalaureate degree. These courses must be selected from the Basic and Distribution Requirements listed above. Students who are enrolled in a combination of upper and lower division courses will be charged for all upper and lower credits based on the upper division tuition schedule.

Refer to the specific degree requirements for further information.

PROCEDURE FOR REQUESTING AP CREDITS

Currently recognized AP examinations and their direct equivalencies are listed below. For any AP test that is not listed below, a score of 3 or better must be earned in order to receive 5 credits of Specified Electives. Credit is posted with an “S” grade at the end of the quarter for which the score report was received, once a transcript record has been established. No credits will be awarded for an examination if the student has already earned credit in a duplicate course; a maximum of sixty (60) credits in AP coursework can apply towards degree/certificate requirements.

Students should have an official copy of their AP 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. AP credits are posted to the transcript at the end of the quarter in which the scores were submitted as long as the student is enrolled in that quarter.

Scores

| Subject | Grade | Action |
|---|-----------|---|
| Art History | 3, 4 or 5 | ART 151 (3 credits/units) |
| Art: Drawing, 2D Design or 3D Design | 4 or 5 | Humanities Distribution (5 credits/units) |
| Biology | 3, 4 or 5 | BIOL&100 (5 credits/units) |
| Calculus AB Exam | 3, 4 or 5 | MATH&151 (5 credits/units) |
| Calculus BC Exam | 3, 4 or 5 | MATH&151 and MATH&152 (10 credits/units) |
| Chemistry | 3,4 or 5 | CHEM&141, CHEM&151 (5 credits/units) |
| Chinese Language & Culture | 3, 4 or 5 | CHIN&121 (5 credits/units) |
| Computer Science (Exam A) | 3, 4 or 5 | CS& 141 (5 credits/units) |
| Computer Science Principles (AP CSP) | 3, 4 or 5 | CSE 101 (1 credit/unit) |
| Economics (Macro) | 3, 4 or 5 | ECON&202 (5 credits/units) |
| Economics (Micro) | 3, 4 or 5 | ECON&201 (5 credits/units) |
| English (Language and Composition Exam) | 4 or 5 | ENGL&101 ¹ (5 credits/units) |
| English (Composition and Literature Exam) | 4 or 5 | ENGL&101 ¹ (5 credits/units) |
| Environmental Science | 3, 4 or 5 | ENVS&101 (5 credits/units) |
| European History | 3, 4 or 5 | Social Science Distribution (5 credits/units) |
| French Language & Culture | 3, 4 or 5 | World Language (5 credits/units) |

| | | |
|--|------------|---|
| Geography | 5 | GEOG&100 (5 credits/units) |
| German Language & Culture | 3, 4 or 5 | World Language (5 credits/units) |
| Government and Politics (US) | 4 or 5 | POLS 111 (5 credits/units) |
| Government and Politics (Comparative) | 4 or 5 | Social Science Distribution (5 credits/units) |
| Human Geography | 3, 4, or 5 | GEOG&200 (5 credits/units) |
| Italian Language & Culture | 3, 4 or 5 | World Language (5 credits/units) |
| Japanese Language | 3, 4 or 5 | JAPN&121 (5 credits/units) |
| Latin Literature & Culture | 4 or 5 | World Language (5 credits/units) |
| Music Listening/Literature | 3, 4 or 5 | MUSC&104 |
| Music Theory | 3, 4 or 5 | MUSC&141 |
| Physics 1 or 2 (formerly Physics B Exam) | 3, 4, or 5 | PHYS&124, PHYS&134 (5 credits/units) |
| Physics (Physics C Mechanics Exam) | 3, 4 or 5 | PHYS&124, PHYS&134 (5 credits/units) |
| Psychology | 4 or 5 | PSYC&100 (5 credits/units) |
| Spanish Language & Culture ² | 3, 4 or 5 | SPAN&121 (5 credits/units) |
| Statistics | 3, 4 or 5 | MATH&146 |
| U.S. History | 3, 4 or 5 | HIST&146, HIST&147, and HIST&148 (15 credits/units) |
| World History | 3, 4 or 5 | HIST&126, HIST&127 and HIST&128 (15 credits/units) |

¹ A 4 or 5 on each exam will award ENGL&101 and ENGL&102.

² A 4 or 5 on Spanish Literature & Culture will award five credits/units of World Language.

Where to Get AP Scores

The College Board: Advanced Placement Program
 PO Box 6671
 Princeton, NJ 08541-6671
 Phone: 609-771-7300
 TTY: 609-882-4118
www.collegeboard.org (<https://www.collegeboard.org>)

NON-TRADITIONAL CREDIT

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, CHEM&151, CHEM&142, CHEM&152, CHEM&143, and CHEM&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&124, PHYS&125, PHYS&126, PHYS&134, PHYS&135, PHYS&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 should have an official copy of their AP 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. AP credits are posted to the transcript at the end of the quarter in which the scores were submitted as long as the student is enrolled in that quarter.

Scores

| Subject | Grade | Action |
|---|------------|---|
| Art History | 3, 4 or 5 | ART 151 (3 credits/units) |
| Art: Drawing, 2D Design or 3D Design | 4 or 5 | Humanities Distribution (5 credits/units) |
| Biology | 3, 4 or 5 | BIOL&100 (5 credits/units) |
| Calculus AB Exam | 3, 4 or 5 | MATH&151 (5 credits/units) |
| Calculus BC Exam | 3, 4 or 5 | MATH&151 and MATH&152 (10 credits/units) |
| Chemistry | 3, 4 or 5 | CHEM&141, CHEM&151 (5 credits/units) |
| Chinese Language & Culture | 3, 4 or 5 | CHIN&121 (5 credits/units) |
| Computer Science (Exam A) | 3, 4 or 5 | CS& 141 (5 credits/units) |
| Computer Science Principles (AP CSP) | 3, 4 or 5 | CSE 101 (1 credit/unit) |
| Economics (Macro) | 3, 4 or 5 | ECON&202 (5 credits/units) |
| Economics (Micro) | 3, 4 or 5 | ECON&201 (5 credits/units) |
| English (Language and Composition Exam) | 4 or 5 | ENGL&101 ¹ (5 credits/units) |
| English (Composition and Literature Exam) | 4 or 5 | ENGL&101 ¹ (5 credits/units) |
| Environmental Science | 3, 4, or 5 | ENVS&101 (5 credits/units) |
| European History | 3, 4 or 5 | Social Science Distribution (5 credits/units) |
| French Language & Culture | 3, 4 or 5 | World Language (5 credits/units) |
| Geography | 5 | GEOG&100 (5 credits/units) |
| German Language & Culture | 3, 4 or 5 | World Language (5 credits/units) |
| Government and Politics (US) | 4 or 5 | POLS 111 (5 credits/units) |
| Government and Politics (Comparative) | 4 or 5 | Social Science Distribution (5 credits/units) |
| Human Geography | 3, 4, or 5 | GEOG&200 (5 credits/units) |

| | | |
|--|------------|---|
| Italian Language & Culture | 3, 4 or 5 | World Language (5 credits/units) |
| Japanese Language | 3, 4 or 5 | JAPN&121 (5 credits/units) |
| Latin Literature & Culture | 4 or 5 | World Language (5 credits/units) |
| Music Listening/Literature | 3, 4 or 5 | MUSC&104 |
| Music Theory | 3, 4 or 5 | MUSC&141 |
| Physics 1 or 2 (formerly Physics B Exam) | 3, 4, or 5 | PHYS&124, PHYS&134 (5 credits/units) |
| Physics (Physics C Mechanics Exam) | 3, 4 or 5 | PHYS&124, PHYS&134 (5 credits/units) |
| Psychology | 4 or 5 | PSYC&100 (5 credits/units) |
| Spanish Language & Culture | 3, 4 or 5 | SPAN&121 ² (5 credits/units) |
| Statistics | 3, 4 or 5 | MATH&146 |
| U.S. History | 3, 4 or 5 | HIST&146, HIST&147, and HIST&148 (15 credits/units) |
| World History | 3, 4 or 5 | HIST&126, HIST&127 and HIST&128 (15 credits/units) |

¹ A 4 or 5 on each exam will award ENGL&101 and ENGL&102.

² A 4 or 5 on Spanish Literature & Culture will award five credits/units of World Language.

Where to Get AP Scores

The College Board: Advanced Placement Program

PO Box 6671

Princeton, NJ 08541-6671

Phone: 609-771-7300

TTY: 609-882-4118

www.collegeboard.org (<https://www.collegeboard.org>)

CREDIT HOURS AND CREDIT LOAD

320.001 Credit Hours and Credit Load

The State Board for Community and Technical Colleges has established rules for how community and technical colleges determine course credit hours. These rules are based on the type of instructor contact hours and the ratio of those hours to the number of weeks in a quarter. "Credit hours" are defined as the unit by which an institution measures its course work. The number of credit hours assigned to a course is defined by the number of hours per week in class and the number of hours per week in out of class preparation. Clark College uses these rules to establish credit hours assigned to each course offered by the College. Credit loads are determined based on the credit hours for which a student enrolls.

Faculty members are charged with assessing student learning outcomes associated with course credit.

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter of credit, or the equivalent amount of work over a different time; or
2. At least an equivalent amount of work as required in the above paragraph for other academic activities as established by the institution, including laboratory work, internships, practical's, studio work, and other academic work leading to the award of credit hours.

The following definitions have been established to guide instructional practice, with each definition equating to a minimum of three weekly hours of student's effort per credit.

Credit hours for three categories of instruction are:

- **Theory:** Students are engaged with faculty and class members in learning theoretical material and/or engaging in activities to apply the theory leading to mastery of course outcomes. Modes of instructional delivery could include but are not limited to: lecture, small group discussion, guided conversation, demonstration, case studies, role-playing, problem based inquiry, and collaborative activities. Instruction may be a mix of presentation, facilitation, and guided activities evidenced by frequent ongoing communication between instructor and students. Such activities could take place in a variety of instructional modalities. One credit is generated by one weekly contact hour of instruction or the equivalent amount of work over a different amount of time. Generally requires out-of-class student effort, typically two hours per class hour.
- **Guided Practice:** Students are actively engaged in practicing and mastering skills under the supervision of the instructor. This category of instruction could include but are not limited to labs, studios, shops, clinical experiences, computer-mediated learning, hands-on projects, or other skill building activities. Instruction may be individualized or group-focused and include skills assessment. Such activities could take place in a variety of instructional modalities. One credit is generated by two weekly contact hours of instruction or the

equivalent amount of work over a different amount of time. May also include out-of-class student effort, typically one hour per two class hours.

- **Field-Based Experience:** Students are engaged in autonomous study or related work activity under the intermittent supervision of the instructor. This mode includes working with or under the direction of professional practitioners and may include preceptorships, co-ops, internships, or service learning activities. Verification of learning outcomes is documented by college faculty in collaboration with professional practitioners. One credit is generated by a minimum of three weekly contact hours of supervised learning experience. Programs may determine that additional hours are needed for the student learning needs. However, only one credit will be generated for enrollment counting purposes.

All instructional modalities use the credit hour determination provided above. Credit hours for all instructional modalities are determined based on the equivalence of credit hours to the Clark College's traditional face-to-face courses. Listed below are all instructional modalities Clark College provides, including modalities Clark aims to provide:

Contact hours in online, hybrid and competency-based classes may vary from more traditional face-to-face classes. Students should demonstrate equivalent learning outcomes regardless of instructional modality.

Traditional (face-to-face) classes

Students and instructors meet together for a certain number of hours, in a classroom and on a regular weekly schedule.

Online classes

Online classes consist entirely of online elements with no face-to-face component. Some online classes require students to interact with each other, the faculty, and content at specific times, while others are entirely self-paced. The number of credits offered in an online course is based on equivalency of learning outcomes of face-to-face modality.

Hybrid classes

Hybrid classes combine face-to-face classroom time with online instruction. Students in a hybrid class come to campus at scheduled times and meet face-to-face with instructors and students. Many class activities are conducted online, including class work assignments, discussions and group projects. The number of credits offered within a hybrid course is based on equivalency of learning outcomes of face-to-face modality.

Flipped classes

The flipped classroom reverses the traditional educational arrangement by delivering instructional content outside of the classroom, often online. Students spend classroom time actively engaging in concepts to clarify and apply the knowledge, under the guidance of the instructor. Credits are awarded based on learning outcomes earned equal to those offered within face-to-face modality.

Competency-based education

Competency-based education (CBE) allows students to earn credit based on their proven mastery of a subject rather than classroom time. The number of credits offered within a CBE course is based on equivalency of learning outcomes of face-to-face modality. CBE courses are offered within the quarter system. A week of instruction within the CBE courses are any seven-day period in which the institution makes available to the students enrolled in the CBE program the instructional materials and faculty support to enable the student to engage in an educational activity. CBE courses are faculty led with weekly consultations with

faculty members to discuss academic course content in addition to assessments of learning.

Exceptions are noted in the quarterly schedule (some classes are not scheduled in the usual College class periods.)

This policy will be reviewed by Executive Cabinet according to the program review policy schedule.

COLLEGE INFORMATION

- History (p. 348)
- Accreditation (p. 349)
- College Assessment (p. 350)
- Student Rights and Responsibilities (p. 351)
- Nondiscrimination and Equity (p. 352)
- Behavioral Intervention and Threat Assessment (BITA) (p. 353)
- Notification of Students' Rights Under the Family Educational Rights and Privacy Act (p. 354)
- Limitation of Liability (p. 355)
- Graduation Rates (p. 356)
- Equity in Athletics (p. 357)
- Consumer Information (p. 358)
- Locations and Campuses (p. 359)

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 Universities¹ (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.¹ (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.¹
- 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 T-TEN program is accredited by the National Automotive Technicians Education Foundation and is a certified Toyota Technician Training Education Network (T-TEN) program.

¹ 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: http://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 http://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 http://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)

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 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 20202-8520

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: <https://nces.ed.gov/collegenavigator/>

EQUITY IN ATHLETICS

The Equity in Athletics Disclosure Act (EADA) 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 <http://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 http://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.

LOCATIONS AND CAMPUSES

Clark College has one main campus and three satellite locations located throughout Clark County. Each of the locations includes a variety of programs to serve the community and help students complete a program at Clark College.

Main Campus

Clark College's beautiful main campus is located on 101 acres in Vancouver's Central Park, just east of Interstate 5 and north of the Columbia River and Fort Vancouver Historic Reserve. This full-service campus includes a gym, music and theatre hall, library, student center, and a new dining space. Hours of Operation: 7am-10pm

Columbia Tech Center

The Columbia Tech Center (CTC), located on the east side of Vancouver, opened in 2009. CTC provide access to education eastern portion of the college's service district, which includes Clark County communities like Camas and Washougal as well as parts of Skamania and Klickitat counties. The campus features state-of-the-art labs serving popular programs like network technology, biology, and mechatronics. Hours of Operation: 7am-5pm

Clark College at WSU Vancouver

Clark College at Washington State University Vancouver, established in 2006, is the result of a longstanding partnership between Clark College and WSU Vancouver. Before WSU Vancouver moved to its current site in 1996, it was housed in Bauer Hall on Clark's main campus. The 63,334 square foot, three-story building provides additional classrooms, science laboratories, computer labs, and support space to accommodate growing enrollment and the desire to provide access to lower division courses for WSU Vancouver students. The beautiful facility is home to Clark's nationally-recognized nursing program as well as general education classes. Hours of Operation: 7am-9pm

Clark College at Boschma Farms

Clark College at Boschma Farms is expected to be a boon for the region and represent a long-term visionary chapter for the college. Design of the first building is expected to start in 2017 on the 70-acre campus located just east of I-5 in Ridgefield, Washington. Construction is scheduled to start in 2019.

Clark College Economic and Community Development

Clark College Economic & Community Development (ECD) is Southwest Washington's premier provider of workforce training and non-credit learning, serving more than 10,000 people annually. ECD offers classes at its main location in the Columbia Bank Building (<http://ecd.clark.edu/about/campus-locations.php>), the Columbia Tech Center, and Clark's main campus.

FACULTY AND ADMINISTRATION

- Board of Trustees (p. 361)
- Executive Cabinet (p. 362)
- Administration (p. 363)
- Faculty (p. 367)
- Foundation (p. 375)

BOARD OF TRUSTEES

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.

Currently, Ms. Rupley is the Superintendent of Clackamas Education District. The ESD serves 10 districts and about 70,000 students in Clackamas County, Oregon.

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 Executive Director for Educational Opportunities for Children & Families. 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

EXECUTIVE CABINET

William Belden (2010)

Vice President of Student Affairs
B.A. Eastern Washington University
M.Ed. Western Washington University

Stefani Conerson (2018)

Vice President Human Resources and Compliance
B.A., M.A., Washington 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, CPA,CFRE (2003)

President/CEO, Clark College Foundation
B.S. University of Oregon
M.B.A. University of California, Irvine

Chato Hazelbaker (2013)

Chief Communications Officer
B.A. Rocky Mountain College
M.A. Crown College
Ed.D. University of St. Thomas (MN)

Sachi Horback (2018)

Vice President of Instruction
A.A. Delaware County Community College
B.A. Millersville University
M.A. Immaculata College
PsyD Chesnut Hill 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

Valerie Moreno (2017)

Chief Information Officer
B.S. DeVry 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)

Vice President of Economic and Community Development
B.S. University of Washington
M.B.A. University of Michigan

ADMINISTRATION

A

Jorge Argueta (2018)
Educational Planner
B.A., M.A. California State Polytechnic University Pomona

B

Rachele Bakic (2012)
Associate Dean of Instructional Operations
B.A. The College of Saint Rose
M.A. Hawaii Pacific University

Andrew T. Barsotti (2014)
Director of Data Services
B.S. University of Wisconsin
M.S. Washington State University, Pullman

Chitpasong "Chippi" Bello (2016)
Associate Dean of Financial Aid
B.S. Brigham Young University - Hawaii
M.S. Portland State University

Randall G. Blakely (2009)
Satellite Campus Building Administrator
B.A., M.P.A. Portland State University
B.S., Ed.D. Oregon State University

Eddie N. Blakley (2008)
Director of Career Services
A.A.S. Linn Benton Community College
B.S., Ed.M. Oregon State University

Margit Brumbaugh (2017)
Educational Planner
B.A. University of Washington
M.Ed. Concordia University

Armetta Burney (2012)
Director of Workforce Education Services
B.S. Southern University
M.B.A. Cardinal Stritch University

Cathleen "Cath" Busha (2016)
Dean of Student Engagement
B.S. Millersville University
M.S.W. Arizona State University

Heather "Colleen" Butcher (2016)
Information Technology Services Project Manager
B.A. Western University
M.B.A. York University
D.Th. George Fox University

C

Christy Campbell (2014)
Assistant Director of Business Services
B.S. Washington State University

Selena Castro (2012)
Dean of Student Enrollment

B.A., M.A., Ph.D. Washington State University

Janette Clay (2014)
Transitional Studies Learning Communities Manager
B.A. Lewis and Clark College
M.S. Portland State University

April Cannon (2017)
Educational Planner
B.S. Oregon State University
M.A. Eastern Michigan University

Tina Cruz (2015)
Corporate Education Client Support Specialist

D

Brielle Daraja (2018)
Associate Director of Student Equity and Inclusion
B.A. State University of New York
M.S.W. Fordham University

E

Guisela Eberle (2017)
Assistant Director of Human Resources
B.A. National Pedagogic University

F

Rachel Falk (2017)
Career Advisor
B.F.A. New York University
M.S. Portland State University

Wende Fisher (2015)
Educational Planner - Professional/Technical
A.A.S. Clark College
B.A. Washington State University
M.Ed., M.S. Oregon State University

Angela Ford (2017)
Information Technology Services Project Manager
A.A. Fresno City College
B.A. San Francisco State University
M.B.A. Ellis College of New York Institute of Technology

Kira Freed (2014)
Educational Planner - Health Occupations
B.A., M.Ed. Western Washington University

G

Joshua Giha (2015)
Application Developer
A.A. Florida Southwestern State College

Marcy Gilchrist (2017)
Educational Planner
B.A. Central Washington University

Kael Godwin (2007)
Decision Support Specialist: Data Science and Analytics
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

H

Ellen Harju (2018)
Director of MESA Program
B.S. University of Washington
M.S., Ph.C., Ph.D. University of California, Los Angeles

Douglas Helmer (2016)
Education Program Director at Larch Corrections
B.S., M.S. Warner Pacific College

Judith Hernandez Chapar (2017)
Director of the Teaching and Learning Center
B.A. Washington State University
M.S.W. Eastern Washington University
Ph.D. Oregon State University

Abigail Herrera (2018)
Economic and Community Development Marketing and Communication
Manager
B.A. Portland State University
M.B.A. Willamette University

Adam Hinkley (2017)
Educational Planner
B.A. University of Oregon
M.A. George Fox University
M.Ed. Kent State University

Nicole Hopkins (2015)
Transitional Studies Coach
A.A. Clark College
B.A. Washington State University

Genevieve Howard (2010)
Dean of Workforce, Professional, and Technical Education
B.A., M.A. California State University, Bakersfield

Nguyen Huynh (2017)
International Admissions Manager
M.Ed. Portland State University

I

J

Christopher Jacob (2015)
Director of Athletics
B.S. Nova Southeastern University
M.Ed. Concordia 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

Joseph Jenkins (2016)
Educational Planner - College Prep and Transfer
A.A. Clark College
B.A. Washington State University
M.S. Portland State University

Jessica Johnson (2017)
Continuing Education Program Manager
B.A. Claremont McKenna College
M.S. University of La Verne

K

Catherine Keane (2014)
Associate Director of Career Services
B.A. Saint Martin's College
M.P.A. Washington State University

Tanya Kerr (2017)
Control Officer
B.A. University of Washington

Monica L. Knowles (1998)
Bookstore Manager
A.A. Brooks College

L

Todd Leavitt (2016)
Director of Information Technology Services Center
A.A. Clark College
B.S. Portland State University

Laura LeMasters (2016)
Assistant Athletic Director
B.A. Washington State University
M.A. California State University - Long Beach

M

John Maduta (2010)
Director of Advising
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

Susan Maxwell (2001)
ctcLink Manager
B.A., M.S. University of Wisconsin-Milwaukee

Lance McIntire (2017)
Environmental Health and Safety Manager
B.S. Missouri State University
M.P.H. Des Moines University

Amy McIntosh (2017)
Educational Planner
B.S. Minnesota State University
M.S. Portland State University

Sherri Meadors (2016)
Payroll Manager
A.A. Clark College

N

Vanessa Neal (2018)
Employee Development Manager
B.A. University of New Mexico
M.S. University of Denver

O

Jennifer Obbard (2017)
Associate Dean of Health Science
B.S.N., M.S.N. Oregon Health Sciences University

Cindi M. Olson (1999)
Executive Assistant to the Vice President of Student Development

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

P

Timothy D. Petta (2013)
Director of Facilities Services
Avis Contractor's License School

Q

R

Tracy B. Reilly-Kelly (1998)
Continuing Education Program Manager
B.A. The Evergreen State College
M.S. Portland State University

Julie L. Robertson (2013)
Decision Support Specialist: Continuous Improvement and Analytics
B.S. Lewis & Clark College
M.S., M.S.W. Portland State University

Carmen Roman (2017)
Educational Planner
A.A. Clark College
B.S. Linfield College

S

Miranda 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

Michael See (2017)
Director of Safety & Security
B.S. College of Professional Studies
M.S. Kaplan University

Natalie M. Shank (2014)
Interim Director of Student Care
B.A. Seattle Pacific University
M.S. Radford University
Ed.D. George Fox University

Cathy Sherick (2015)
Associate Director of Instructional Programming & Innovation
B.S. Eastern Oregon State
M.P.A. Portland State University

Jody Shulnak (2007)
International Student Recruitment & Outreach Manager
B.S. Northern Arizona University
M.S. Portland State University

T

Julie F. Taylor (2005)
Administrative Secretary

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

U

V

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.S. Portland Community College
B.S. Warner Pacific

W

Brenda Walstead (2015)
Dean of Business and Health Sciences
A.A. Clark College
B.S. Concordia University
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

Francois Wevers (2016)

Director of Economic Partnerships and Customized Learning
B.S. Pacific Lutheran University

Brenda Wierschin (2016)

Disability Support Services Accommodation Specialist
B.S. University of California
M.S.W. Portland State University

Jim Wilkins-Luton (2015)

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., B.A. Warner Pacific College
M.B.A. Concordia University

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

Carley Willis (2018)

Educational Planner
B.S.W. George Fox University
M.S.E. Capella University

Patrick Willis (2014)

Career Advisor
B.A., M.Div. George Fox University

Associate Director of Employee Diversity Outreach, Retention, and
Development
B. A. Azusa Pacific University

Z

X

Y

Rochelle Younan-Montgomery (2018)

FACULTY

A

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

Glenna Afflerbaugh (2015)
Dental Hygiene
A.A.S. Clark College
B.S. Eastern Washington University
M.Ed. Concordia University

Roberto P. Anitori (2013)
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)
Economics
B.A. Marist
M.S. Portland State University

Julie A. Austad (2013)
Librarian
B.A. Linfield College
M.L.S. Emporia State University

B

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

Rheannin Becke (2016)^T^T
Transitional Studies
M.S. Marquette University
M.A. University of Alaska Southeast

Carol L. Beima (1999)
Adult Basic Education
B.A. Wittenberg University
M.Ed. University of Washington

Gene Biby (2011)
Drama
B.S., M.S. Murray State University
Ph.D. Southern Illinois University

Aaron S. Bingham (1994)
Mathematics
B.A. University of California, Los Angeles
M.A. California State University, Sacramento

Mark E. Bolke (2000)
Biology
B.S., M.S. Portland State University

Christopher Boucher (2017)^T^T
Welding
WAC/RCW Certification
Amy Bratton (2017)^T^T
Communication Studies
B.A. University of Memphis
M.S. Portland State University

Veronica P. Brock (1995)
Health and Physical Education
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

C

Paul A. Casillas (1990)
Mathematics B.A. Augustana College, Illinois
M.A. University of Iowa
M.S. University of Oregon

Amy Castellano (2016)^T^T
Phlebotomy
B.S. University of Arizona
N.D. National College of Natural Medicine

Carlos J. Castro (2006)

Sociology

B.A., M.A., M.C.R.P., Ph.D. University of Oregon

Joseph Cavalli (2018)^{T-T}

History

B.A. Portland State University

M.A. University of Portland

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)

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

Cara Cocchiarella (2016)^{T-T}

Health and Physical Education

B.A., M. S., Ed.D. University of Montana

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

Catherine Crosby (2016)^{T-T}

Biology

B.S. Western Washington University

M.S., Ph.D. Washington State University

William T. Cushwa (1995)

Biology

B.S. Virginia Polytechnic Institute and State University

M.S., Ph.D. University of California, Davis

D**Jill C. Darley-Vanis** (2006)

English

B.A. Oregon State University

M.A. Portland State University

Kushlani de Soyza (2013)

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

Alison Dolder (2017)^{T-T}

Baking

A.A. Clark College

Elizabeth Donley (2011)

English

B.A. DePaul University

M.A., M.F.A. Chapman University

E**Allen "Mark" Eddinger** (2018)^{T-T}

Mathematics

B.S. DeVry Institute of Technology

M.S. Western Washington University

Evalinn "Sunnie" Elhart-Johnson (2010)

Business Medical Technology

B.S. Humboldt State University

M.S. Warner Pacific College

Mark L. Elliott (1994)

Mathematics

B.S., M.S. Portland State University

Rebecca Engel (2017)^{T-T}

American Sign Language

B.S. Oregon State University

M.Ed. Western Oregon University

Mary E. Evens (2000)

Business Technology

B.A. Central Washington University

M.A. Pepperdine University

Amy Ewing-Johnson (2018)^{T†}

Dental Hygiene

A.S., B.S., M.S.E. Indiana University

F

Melissa Favara (2018)^{T†}

English

B.A. Western Michigan University

M.A. The Pennsylvania State University

Nadine L. Fattaleh-Diggs (2002)

Chemistry-General

B.A. Scripps College

M.S. Carnegie Mellon University

Caron Ford(2015)

Adult Basic Education

A.S. Bakersfield College

B.A. San Francisco State University

M.A California State University

Nicholas C. Forrest (1996)

Political Science

B.A. St. Joseph's College

M.A., Ph.D. Northwestern University

Van A. Forsyth (1995)

History

B.A. University of California, Berkeley

M.A. San Francisco State University

Robert "Earl" Frederick (2017)^{T†}

Culinary

A.S. Johnson & Wales University

B.S. Warner Pacific College

Jacob Funk (2016)^{T†}

Music

B.S. John Brown University

M.S. University of British Columbia

D.M.A. University of Missouri - Kansas City

G

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)

Communication 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

Aaron Guerra (2017)^{T†}

Culinary

A.O.S. Le Cordon Bleu Culinary College

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

H

Marilyn Hale (2010)

Business Technology

B.S. University of Montana-Western

M.Ed. Montana State University

Kathrena L. Halsinger (2001)

Art/Graphic Design

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

Douglas Harris(2018)^{T†}

Music

B.A. University of Florida

M.M., D.A. University of Northern Colorado

Rebecca Herman (2015)

Dental Hygiene

A.S. Clark College

B.S., M.Ed. Concordia University

Grant N. Hottle (2013)

Art
B.F.A. University of Oklahoma
M.F.A. University of Oregon

Christina Howard (2018)^{T†}

Biology/Anatomy & Physiology
B.S., M.S. Portland State University

Garrett L. Hoyt (2013)

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)

Computer 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

I

J

Hannah Jackson (2016)^{T†}

Mathematics
B.S. Willamette University
M.S. Syracuse University

Debra R. Jenkins (2000)

Early Childhood Education/Psychology
A.A.S. Clark College
B.A., M.A. Pacific Oaks College
M.S. University of Phoenix

Andrew B. Johnson (2013)

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

K

Yusufu Kamara (2015)

Economics
B.S. University of Sierra Leone
M.A., Ph.D. University of Kansas

Sally J. Keely (1996)

Mathematics

B.S., M.S. Portland State University

Izad Khormae (2003)

Engineering
B.S., M.S. Iowa State University
M.B.A. University of Oregon

Travis T. Kibota (1994)

Biology
B.S. University of California, Los Angeles
M.S., Ph.D. University of Oregon

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

Sarah Kuzera (2017)^{T†}

Business Technology
A.S., B.S., Everest College
M.B.A., Bryan University
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Communication Studies
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T

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Y

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X

Y

Z

DIRECTORIES AND ACADEMIC CALENDAR

- Phone Directory (p. 378)
- Academic Calendar (p. 379)

PHONE DIRECTORY

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>

ACADEMIC CALENDAR

2018 Summer Term

| Event | Date (Day of the Week) |
|--------------------------------|------------------------|
| July 4th Holiday | July 4 (W) |
| Classes Begin | July 9 (M) |
| End of 1st 4-week session | August 3 (F) |
| 2nd 4-week session begins | August 6 (M) |
| Last day of 2nd 4-week session | August 31 (F) |
| Last day of 8-week session | August 31 (F) |

2018 Fall Term

| Event | Date (Day of the Week) |
|------------------------------|------------------------|
| Labor Day Holiday | September 3 (M) |
| Classes Begin | September 24 (M) |
| Faculty Workday (no classes) | October 12 (F) |
| Veteran's Holiday | November 12 (M) |
| Faculty Workday (no classes) | November 21 (W) |
| Thanksgiving Holiday | November 22-23 (Th-F) |
| Last Day of Classes | December 7 (F) |
| Final Exams December | 10-13 (M-T-W-Th) |
| Faculty Workday | December 14 (F) |
| Christmas Holiday | December 25 (T) |

2019 Winter Term

| Event | Date (Day of the Week) |
|----------------------------|------------------------|
| New Year's Day | January 1 (T) |
| Faculty Workday | January 4 (F) |
| Classes Begin | January 7 (M) |
| Martin Luther King Holiday | January 21 (M) |
| Presidents' Day Holiday | February 18 (M) |
| Last Day of Classes | March 15 (F) |
| Final Exams | March 18-21 (M-T-W-Th) |
| Faculty Workday | March 22 (F) |
| Faculty Workday | March 25 (M) |

2019 Spring Term

| Event | Date (Day of the Week) |
|----------------------|------------------------|
| Faculty Workday | April 5 (F) |
| Classes Begin | April 8 (M) |
| Memorial Day Holiday | May 27 (M) |
| Last Day of Classes | June 14 (F) |
| Final Exams | June 17-20 (M-T-W-Th) |
| Graduation | June 20 (Th) |
| Faculty Workday | June 21 (F) |

CORRECTIONS

- [Catalog Corrections \(p. 381\)](#)
- [Course Corrections \(p. 382\)](#)
- [Degrees and Certificate Corrections \(p. 383\)](#)

CATALOG CORRECTIONS

COURSE CORRECTIONS

DEGREES AND CERTIFICATE CORRECTIONS

CATALOG ARCHIVES

- 2017 - 2018 Catalog (<http://www.clark.edu/academics/catalog/2017>)
 - 2017 - 2018 Corrections (<http://www.clark.edu/academics/catalog/2017/corrections>)
- 2016 – 2017 Catalog (<http://www.clark.edu/academics/catalog/2016>)
 - 2016 – 2017 Corrections (<http://www.clark.edu/academics/catalog/2016/catalog-corrections>)
- 2015 – 2016 Catalog (<http://www.clark.edu/academics/catalog/2015>)
 - 2015 – 2016 Corrections (<http://www.clark.edu/academics/catalog/2015/catalog-corrections>)
- 2014 – 2015 Catalog (<http://www.clark.edu/academics/catalog/2014>)
 - 2014 – 2015 Corrections (<http://www.clark.edu/academics/catalog/2014/2014corrections.pdf>)
- 2013 – 2014 Catalog (<http://www.clark.edu/academics/catalog/2013>)
 - 2013 – 2014 Corrections (<http://www.clark.edu/academics/catalog/2013/2013corrections.pdf>)
- 2012 – 2013 Catalog (<http://www.clark.edu/academics/catalog/2012>)
 - 2012 – 2013 Corrections (<http://www.clark.edu/academics/catalog/2012/2012corrections.pdf>)
- 2011 - 2012 Catalog (<http://www.clark.edu/academics/catalog/2011>)
 - 2011 - 2012 Corrections (<http://www.clark.edu/academics/catalog/2011/2011corrections.pdf>)

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