

Course Descriptions

Course descriptions are listed on the following pages. The specific courses offered each academic year, including online classes, are listed in official class schedules issued before the beginning of each quarter. Course offerings may be changed without prior notice.

Course Numbers and Credit Hours

Generally, one credit hour is allowed for each hour of lecture, each two hours of lab, or each three hours of clinical experience per week. However, some courses vary from this pattern.

Courses numbered below 100 are developmental and not intended for transfer credit. Courses numbered above 100 will generally transfer to four-year colleges or universities, although there are limits to the number of technical credits that can be included in a transfer degree. If you plan to transfer to a four-year school, be sure to consult that school's catalog to verify transferability of Wenatchee Valley College courses. Questions regarding the transferability of any course should be directed to the student services department or the admissions/registration office at WVC.

Generally, 200-level courses are more advanced than 100-level courses. If the prerequisite does not specifically require sophomore standing, a freshman student may enroll in a 200-level course.

Distance Learning Courses

Distance learning courses offer a flexible alternative to on-campus classes. Whereas on-campus classes require you to be in a specific classroom at a specific time on specific days, distance learning allows you the convenience of scheduling your coursework around job, family or other circumstances that conflict with traditional class scheduling. Course content and college credit are equivalent to on-campus courses, and distance learning courses transfer to other institutions the same as on-campus classes. It is possible to earn your associate of arts and sciences degree through distance learning.

Hybrid Courses

Hybrid courses are a blend of an on-campus class and a distance learning online class. Your class will have a specified face-to-face meeting time, which will be significantly less than an on-campus class, and an online component that provides you more latitude in managing your schedule. With hybrid courses, you will not be required to be on campus every day of the week. Course content and college credit are equivalent to on-campus and distance courses. Transfer to other institutions is the same as any other credit classes. Because hybrid courses

are writing intensive, you should have good writing skills as well as average keyboarding and word-processing skills (ENGL& 101 is highly recommended). Access to the internet is also required.

Online Courses

Online courses enable you to take classes and communicate with your instructor and classmates via computer and the Internet. To be successful in an online course, you should be able to create, save and manage computer files; know how to send and receive e-mail and e-mail attachments; and know how to download and install software on a computer, if needed. Also, because online courses are writing intensive, you should have good writing skills (ENGL& 101 is recommended) and average keyboarding and word processing skills. For more information about online courses and technical requirements, visit the WVC website, www.wvc.edu.

Interactive Television (K-20)

Interactive television (ITV) courses are regularly scheduled on-campus courses. A live video signal, transmitted via the K-20 video network, enables one instructor to teach students in two or more classrooms.

Cooperative Work Experience (CWE)

Cooperative work experience (CWE 196 and 296) is a way to earn college credit through on-the-job experience in your chosen field. This program offers you a way to combine classroom study at WVC with related work experience under the supervision of an employer. Work experience, paid or unpaid, must be related to your educational and career objectives.

This program is subject to the following stipulations:

- You must meet with the CWE coordinator to determine eligibility and to complete the enrollment process.
- Course credit may be earned for work experience if the work is related to either your major or vocational goal.
- One CWE credit requires 50 hours of work experience.
- Regular registration policies and tuition rates apply to CWE credits.
- Credit will be awarded on a pass/fail basis and will not affect GPA.
- The CWE coordinator will meet with you and your employer on the job site as part of the evaluation process for CWE credits.
- No more than 10 CWE credits may be applied to any WVC degree.

Directed Study

Directed study allows you to complete an established WVC course through independent study rather than in the classroom. This is a benefit if you need a class that isn't offered during a particular quarter or at a time when attendance is impossible. The course will cover the same objectives and will produce the same learning outcomes as if you had attended a regularly scheduled class.

This agreement is subject to the following stipulations:

- To be eligible, you must have completed 45 credits with a minimum cumulative GPA of 2.5 at WVC. The appropriate administrator must approve any waivers of this requirement.
- A contractual agreement that outlines the terms of the project is arranged between you and the instructor before registration.
- The application process must be completed by the 10th day of the quarter.
- A maximum of five independent project credits can be earned in one quarter.
- Regular admissions policies and tuition costs apply to credit for directed studies.
- Application forms are available in the admissions/registration office, instruction office and online.

Special Topics

Special topics courses, 197 and 297 (one to five credits each), are designed to deal with unique subjects or timely topics. They are taught by WVC faculty and are conducted as traditional classroom courses.

Independent Projects

With the approval of the appropriate administrator and instructor, you may do independent projects (198 and 298, one to five credits each) that will allow you to pursue enhancements in areas of study not generally available in the established curriculum, such as research, reading and writing.

This agreement is subject to the following stipulations:

- To be eligible, you must have completed 45 credits with a minimum cumulative GPA of 2.5 at WVC. The appropriate administrator must approve any waivers of this requirement.
- A contractual agreement that outlines the terms of the project is arranged between you and the instructor before registration.
- The application process must be completed by the 10th day of the quarter.
- A maximum of five independent project credits can be earned in one quarter.
- Regular admissions policies and tuition costs apply to credit for independent projects.
- Each independent project credit requires you to work 30 hours under supervision of an instructor.

- Application forms are available in the admissions/registration office, instruction office and online.

Looking for some different or interesting options?

- Try distance learning—you can earn your associate of arts and sciences degree through online courses. You can always mix in day and evening classes taught on both the Wenatchee and Omak campuses.
- Try evening classes—you can earn your associate of arts and sciences degree by taking classes during the evening. You can also mix in some distance learning classes.
- Try Native languages—at our Omak campus, Native languages are taught through a partnership with the Colville Confederated Tribes.
- Try short-term technical programs to assist in career development.
- Try a learning community—watch for offerings of Northwest Nature Writing and Form and Function: Integrating Art and Ornithology. These are 10-credit classes that combine English composition and art with studies of Northwest environments. For more information, visit www.wvc.edu/learningcommunities.
- Discover music with state-of-the-art technology—our music majors use PDAs and laptop computers with professional industry software.

Common Course Numbering

In an effort to make it easier for Washington state community college students to transfer between and among the 34 community and technical colleges, the state introduced the Common Course Numbering Project. Through common course numbering the same courses at all community and technical colleges are titled and numbered in a similar way.

Common courses are identified with an “&” following the department or class name. Transfer courses that are not listed as common will still transfer under the direct transfer agreement outlined in the catalog and on the college website: www.wvc.edu. If you have questions regarding this change, please visit the Washington State Board for Community & Technical College’s website located at www.sbctc.ctc.edu.

Former WVC Course ID	WVC Course Title	Common Course ID	Common Course Title	Former WVC Course ID	WVC Course Title	Common Course ID	Common Course Title
ANTH 101	Intro to Anthropology	ANTH& 100	Survey of Anthropology	GER 103	German III	GERM& 123	German III
ANTH 130	Intro to Linguistics	ANTH& 207	Intro to Linguistics	HIST 101	Ancient History	HIST& 116	Western Civilization I
ANTH 201	Biological Anthro	ANTH& 205	Biological Anthropology	HIST 102	Medieval History	HIST& 117	Western Civilization II
ANTH 202	Sociocultural Anth	ANTH& 206	Cultural Anthropology	HIST 103	Modern History	HIST& 118	Western Civilization III
ANTH 203	Prin of Archaeology	ANTH& 204	Archaeology	HIST 162	Pacific NW History	HIST& 214	Pacific NW History
ANTH 230	Plateau Culture	ANTH& 217	Plateau Native Peoples	HIST 204	U.S. History I	HIST& 146	US History I
ART 101	Introduction to Art	ART& 100	Art Appreciation	HIST 205	U S History II	HIST& 147	US History II
ASTR 217	Intro to Astronomy	ASTR& 101	Intro to Astronomy	HIST 210	Native American History	HIST& 219	Native American History
BIOL 101	Intro to Biology	BIOL& 100	Survey of Biology	HUMN 101	Intro to Humanities	HUM& 101	Intro to Humanities
BIOL 121	Biology of Cells	BIOL& 211	Majors Cellular	JAPN 101	Japanese I	JAPN& 121	Japanese I
BIOL 122	Biology of Plants	BIOL& 212	Majors Plants	JAPN 102	Japanese II	JAPN& 122	Japanese II
BIOL 123	Biology of Animals	BIOL& 213	Majors Animals	JAPN 103	Japanese III	JAPN& 123	Japanese III
BIOL 128	Oceanography: Marine Env	OCEA& 100	Intro to Oceanography	JAPN 204	Japanese IV	JAPN& 221	Japanese IV
BIOL 221	Hum Anatomy/Phys I	BIOL& 241	Human A & P 1	JAPN 205	Japanese V	JAPN& 222	Japanese V
BIOL 222	Hum Anatomy/Phys II	BIOL& 242	Human A & P 2	JAPN 206	Japanese VI	JAPN& 223	Japanese VI
BIOL 223	Microbiology	BIOL& 260	Microbiology	MATH 108	Mathematical Reasoning	MATH& 107	Math in Society
BUSA 101	Intro to Business	BUS& 101	Intro to Business	MATH 115	Elements of Calculus	MATH& 148	Business Calculus
BUSA 201	Intro to Law	BUSA& 201	Business Law	MATH 120	Precalc I: Algebra	MATH& 141	Precalculus I
BUSA 251	Financial Acct I	ACCT& 201	Prin of Accounting I	MATH 121	Precalc II: Trig	MATH& 142	Precalculus II
BUSA 252	Financial Acct II	ACCT& 202	Prin of Accounting II	MATH 124	Calculus I	MATH& 151	Calculus I
BUSA 253	Managerial Acct	ACCT& 203	Prin of Accounting III	MATH 125	Calc/Anlyt Geom II	MATH& 152	Calculus II
CHEM 101	Introductory Chemistry	CHEM& 110	Chemical Concepts w/lab	MATH 126	Calc/Anlyt Geom III	MATH& 153	Calculus III
CHEM 110	Survey/Inorgan Chem	CHEM& 121	Intro to Chemistry	MATH 201	Statistical Analysis	MATH& 146	Introduction to Stats
CHEM 111	Survey Organic & Bio	CHEM& 131	Intro to Organic/Biochem	MATH 227	Calculus IV	MATH& 254	Calculus IV
CHEM 121	General Chem I	CHEM& 161	General Chemistry I w/lab	MUS 101	Surv/West Mus: Renaissan	MUSC& 105	Music Appreciation
CHEM 122	General Chem II	CHEM& 162	General Chemistry II w/lab	MUS 106	Music Theory 1A	MUSC& 131	Music Theory 1
CHEM 123	General Chem III	CHEM& 163	General Chemistry III w/lab	MUS 107	Music Theory 1B	MUSC& 132	Music Theory 2
CJ 101	Intro to Criminal Justice	CJ& 101	Intro to Criminal Justice	MUS 108	Music Theory 1C	MUSC& 133	Music Theory 3
CJ 120	Intro to Criminal Law	CJ& 110	Criminal Law	MUS 131	Sight Singing/Ear Training 1A	MUSC& 121	Ear Training 1
CJ 130	Intro to Juvenile Justice	CJ& 106	Intro to Juvenile Justice	MUS 132	Sight Singing/Ear Training 1B	MUSC& 122	Ear Training 2
CJ 201	Intro to Corrections	CJ& 105	Intro to Corrections	MUS 133	Sight Singing/Ear Training 1C	MUSC& 123	Ear Training 3
COMM 102	Intro: Communication	CMST& 101	Introduction to Comm	MUS 206	Music Theory IV	MUSC& 241	Music Theory IV
COMM 105	Interpersonal Commun	CMST& 210	Interpersonal Comm	MUS 207	Music Theory V	MUSC& 242	Music Theory V
COMM 220	Public Speaking	CMST& 220	Public Speaking	MUS 208	Music Theory VI	MUSC& 243	Music Theory VI
ECE 101	Intro. to Early Childhood	ECED& 105	Intro. to Early Childhood	NUTR 101	Intro to Nutrition	NUTR& 101	Nutrition
ECE 102	Child Development	EDUC& 115	Child Development	PHIL 101	Intro to Philosophy	PHIL& 101	Intro to Philosophy
ECE 108	Health, Safety, Nutrition	ECED& 107	Health, Nutrition & Safety	PHIL 106	Intro to Logic	PHIL& 115	Critical Thinking
ECE 113	Child Guidance	EDUC& 130	Guiding Behaviors	PHYS& 121	General Physics I	PHYS& 114	General Physics I
ECE 116	Working with Families	EDUC& 150	Child, Family & Comm.	PHYS& 122	General Physics II	PHYS& 115	General Physics II
ECE 118	Early Childhood Environ.	ECED& 170	Environ. for Young Childre	PHYS& 123	General Physics III	PHYS& 116	General Physics III
ECE 125	Intro to Special Educ	EDUC& 204	Exceptional Child	PHYS 115	Survey of Physics	PHYS& 100	Physics Non-Sci Majors
ECE 131	Field Experience I	ECED& 120	Practicum-Nurturing Relat.	PHYS 121	Engineering Physics I	PHYS& 221	Engineering Physics I
ECE 206	Sharing Lit. w/ Children	ECED& 180	Language & Literacy I	PHYS 122	Engineering Physics II	PHYS& 222	Engineering Physics II
ECE 212	Observation & Assessment	ECED& 190	Observation & Assessment	PHYS 123	Engineering Physics III	PHYS& 223	Engineering Physics III
ECE 215	Infant/Toddler Curric.	ECED& 132	Infant/Toddler Curric.	POLS 101	American Government	POLS& 202	American Government
ECE 216	School Age Care	EDUC& 136	School Age Care	POLS 110	Intro to Politics	POLS& 101	Intro to Political Science
ECE 265	Program Management	ECED& 139	Administration	POLS 222	International Relations	POLS& 203	International Relations
ECON 201	Intro Microeconomics	ECON& 201	Micro Economics	PSYC 101	Intro to Psychology	PSYC& 100	General Psychology
ECON 202	Intro Macroeconomics	ECON& 202	Macro Economics	PSYC 201	Human Development	PSYC& 200	Lifespan Psychology
ENGL 101	Comp:General	ENGL& 101	English Composition I	SIGN 101	American Sign Lang I	ASL& 121	Am Sign Language I
ENGL 106	Intro to Literature	ENGL& 111	Intro to Literature	SIGN 102	American Sign Lang II	ASL& 122	Am Sign Language II
ENGL 212	Contemp Fiction	ENGL& 112	Intro to Fiction	SOC 102	Prin of Sociology	SOC& 101	Intro to Sociology
ENGL 230	Survey of British Literature	ENGL& 226	British Literature	SOC 105	Social Problems	SOC& 201	Social Problems
GEOG& 101	Intro. to Geography	GEOG& 100	Intro. to Geography	SPAN 101	Spanish I	SPAN& 121	Spanish I
GEOG 201	Economic Geography	GEOG& 207	Economic Geography	SPAN 102	Spanish II	SPAN& 122	Spanish II
GEOG 202	World Regional Geography	GEOG& 102	World Regional Geography	SPAN 103	Spanish III	SPAN& 123	Spanish III
GEOL 101	Intro to Geology	GEOL& 101	Intro to Physical Geology	SPAN 204	Spanish IV	SPAN& 221	Spanish IV
GEOL 210	Geology of the Pacific NW	GEOL& 208	Geology of the Pacific NW	SPAN 205	Spanish V	SPAN& 222	Spanish V
GER 101	German I	GERM& 121	German I	SPAN 206	Spanish VI	SPAN& 223	Spanish VI
GER 102	German II	GERM& 122	German II	THTR 110	Intro Theater	DRMA& 101	Intro to Theatre

Accounting

ACCT 102 Practical Accounting I 5 credits

This course covers a sole proprietorship service business. Topics include assets, liabilities, owner's equity, revenue, expenses, worksheets, financial statements, adjusting entries, closing entries, cash funds, and payroll.

ACCT 103 Practical Accounting II 5 credits

This course covers a sole proprietorship merchandising business. Topics include notes payable and receivable, work sheets, financial statements, adjusting and reversing entries, special journals, inventory valuation, and depreciation. Prerequisite: ACCT 102.

ACCT 105 Payroll and Tax Accounting 3 credits

Covers payroll and selected business tax procedures. Designed for the ATS accounting degree major as well as for those in the community who want to upgrade their knowledge of payroll and business tax accounting. Prerequisite: ACCT 102 or equivalent.

ACCT 165 Computerized Accounting 5 credits

A comprehensive study of computerized accounting systems in both service and merchandising environments. Realistic business simulations are analyzed by using a variety of companies and projects. Commercial Windows accounting software demonstrates the use of fully integrated accounting systems. Students will set up a computerized system for manual conversion. Prerequisites: BCT 105, ACCT 102 or instructor's signature. May be repeated with different software.

ACCT& 201 Principles of Accounting I 5 credits

Covers current generally accepted accounting principles, theories and procedures used in financial accounting and reporting. Key topics covered include an introduction to preparing and using financial statements, corporate annual reports, the accounting cycle for service and merchandising businesses, cash, financial assets, inventory, plant and equipment, and other long-term assets. Prerequisite: sophomore standing recommended.

ACCT& 202 Principles of Accounting II 5 credits

Second in the series on accounting theory. Continuation of current generally accepted accounting principles, theories and procedures used in financial accounting and reporting with emphasis on corporate accounting and reporting. Includes current and long-term liabilities, time value of money, stockholders' equity, cash flow statements, financial statement analysis and international accounting. Prerequisites: ACCT& 201 or instructor's signature.

ACCT& 203 Principles of Accounting III 5 credits

Covers topics and concepts related to internal decision-making for business, to help managers use accounting information to make decisions and achieve control. Topics include an introduction to management theory and concepts, cost terminology, costing techniques, cost behavior, cost-volume-profit considerations, segment analysis, budget analysis, pricing,

incremental analysis, and capital budgeting. Prerequisite: ACCT& 202 or instructor's signature.

Adult Basic Education

ABE 012 Digital Literacy I 1-5 credits

Designed for the beginning technology user: basic use and functions of mobile and traditional digital technology tools. Addresses beginning keyboarding, I/O device use, menu and GUI navigation, and basic internet and email usage with contextual activities covering HS21+ topics. This course may confer HS21+ English, occupational education or elective credit. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 013 Digital Literacy II 1-5 credits

Students with basic familiarity of traditional and mobile digital technology will explore office productivity applications, internet content, online learning management systems, and advanced information manipulation and organization with contextual activities covering HS21+ topics. This course may confer HS21+ occupational education or elective credit. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 014 Digital Literacy III 1-5 credits

Students will finalize college and career readiness in digital literacy as they explore advanced functions of learning management systems, email, internet content, digital research and reporting, and office productivity applications with contextual activities covering HS21+ topics. This course may confer HS21+ occupational education or elective credit. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 016 Foundational English Language Acquisition 1-10 credits

Introduction to English Language Acquisition skills for non-native speakers. Covers reading, writing, listening and speaking skills for everyday use, with emphasis on alphabet, simple grammar, pronunciation, common vocabulary and present tenses, using contextual learning and goal-setting activities. Replaces ESL 020. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 017 Basic English Language Acquisition 1-10 credits

Designed for basic-level learners of English to improve reading, writing, listening and speaking skills; stresses sentence structure, verb tenses, subject-verb agreement and vocabulary in contextual activities involving HS21+ topics. This course confers HS21+ English credit and may confer other HS21+ credit. Replaces ESL 021, ABE 030 and ABE 050. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 018 Intermediate English Language Acquisition 5-10 credits

Through contextual activities involving HS21+ topic areas, learners continue development of reading, writing, speaking and listening skills. Students navigate complex sentences and single

paragraph passages for comprehension and effective written communication. This course confers HS21+ English credit and may confer other HS21+ credit. Replaces ESL 022, ABE 031 and ABE 051. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 019 **5-10 credits**
Advanced English Language Acquisition

Through contextual activities involving HS21+ topics, learners demonstrate full competency in reading, writing, speaking and listening for college and career success. Students apply advanced English language skills in highly complex, multi-paragraph communicative tasks. This course confers HS21+ English credit and may confer other HS21+ credit. Replaces ABE 032, ABE 052. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 040 **1-5 credits**
Basic ABE Math

Introductory mathematical concepts described in CCRSs Levels A and B, including place value, simple operations and problem solving, basics of geometry and measurement, and introduction to fractions, decimals and percentages. Includes contextual activities covering HS21+ topics. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 041 **1-5 credits**
Intermediate ABE Math

Learners continue development in mathematical reasoning to outcomes described in CCRSs Levels C and D, including multi-digit operations, common factors and multiples; increasingly complex fractional, decimal and percentage operations; ratios and proportions; introductory algebraic equations; and development of geometry, statistics and measurement concepts. Includes contextual activities covering HS21+ topics. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 042 **1-5 credits**
Advanced ABE Math

Advanced competencies as described in CCRSs Level E in mathematics, algebra and geometry, including rational and irrational numbers, ratio and rate reasoning, real-world application of numerical and algebraic equations, functions, and advanced geometry, statistics and measurement concepts. Includes contextual activities covering HS21+ topics. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 061 **1-5 credits**
ABE College & Life Skills

Intensive college orientation activities, through contextual reading and writing assignments. Students develop organizational and communication skills; explore educational and career pathways; become proficient in interactions with college classes, instructors and other students; and learn to navigate college systems. This course may confer HS21+ credit for English, occupational education, or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

ABE 077 **1-10 credits**
Secondary Preparation: Equivalency Exams & Diplomas

Students will address topics required for High School Equivalency (HSE) or High School Diploma success, in individual, group or class projects and portfolio artifact production. This self-paced, variable-credit emporium course may confer any earned HS21+ credit in any subject area. Instruction may be offered in bilingual English/Spanish format. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

Agriculture

AGRI 005 **19 credits**
Hispanic Orchard Employee Education Program I

Designed for Latino orchard employees at a supervisory level. Includes basic instruction in Spanish emphasizing technical terminology in English in many facets of tree fruit production; basic math, practice in reading, writing, speaking and listening in English based in horticultural topics; and presentations of subjects concerning everyday life and citizenship.

AGRI 006 **19 credits**
Hispanic Orchard Employee Education Program II

Designed for Latino employees who have satisfied all the requirements of the first-year program (AGRI 005). Offers in-depth instruction in tree fruit production, applied English terminology and math. Includes presentations of subjects concerning everyday life and citizenship. Prerequisite: AGRI 005 or instructor's signature.

AGRI 015 **19 credits**
Hispanic Orchard Employee Ed Program III/Integrated Pest Management Technology

Intensive IPM program prepares Latino orchard employees as pest management scouts. Instruction, mostly in Spanish, emphasizes English terminology. Includes study of pests, field sampling techniques, pest management basics and record keeping. Includes basic math, reading, writing, speaking and listening in English, and discussion of everyday life and citizenship.

AGRI 016 **19 credits**
Hispanic Orchard Education Level IV/Farm Management

Taught in Spanish, this course introduces the principles and practices of farm management, including goal setting, developing a record-keeping system, cash flow, farm financial statements, balance sheets, budgets, personnel management, laws and regulations, legal forms, and food safety. Prerequisites: basic command of the English language.

AGRI 017 **19 credits**
Hispanic Orchard Education Level V/Intro Viticulture

Taught in Spanish, this course introduces the production and management of wine grapes and their juices. Includes plant physiology, canopy management, soils, irrigation, plant nutrition, thinning, harvest, storage, marketing and vineyard financial management. Prerequisites: basic command of English language.

AGRI 018 **19 credits**
Hispanic Orchard Employee ED Program VI/Advanced Viticulture

Taught in Spanish. Offers more in-depth information about

the production systems and management of wine grapes and their juices. Includes site selection and vineyard establishment, soils, pests and irrigation management, human resources, vineyard business plan, marketing and whole farm ecosystems. Prerequisites: basic command of English language.

AGRI 019 **19 credits**
HOEEP VII/Integrated Pest Mgmt Tech/Vineyard Mgmt

Intensive technical instruction to prepare Latino vineyard employees as pest management scouts and to introduce them to basic vineyard economics and management. Instruction is mostly in Spanish, emphasizing terminology in English. The purpose of this course is to prepare students for mid-management and management positions.

AGRI 101 **3 credits**
Introduction to Agriculture

Introduction to modern agricultural industries, history, management philosophies, and challenges. Course topics include: food crop production, sustainable resource management, global food demands, and economics. Students will be provided an opportunity to research and explore their career interests and create a strategy for their professional future in agriculture.

AGRI 105 **3 credits**
Agricultural Mechanics

Introduction and exploration of the theory and practice of safe operation, maintenance, service and repair of most small engines for agricultural applications. Instruction will also include employment and careers in agricultural mechanics.

AGRI 108 **3 credits**
Introduction to Horticulture

Introduction to horticulture studies. Instruction includes: its history and philosophy and core topics in pomology, olericulture, floriculture, viticulture, propagation, growing systems management and strategies. Course will provide students the necessary skills and experiences to explore meaningful career paths in horticulture.

AGRI 116 **1 credit**
Agriculture Lab I

This course provides hands-on opportunities and experiences through organized class activities and projects for fall agricultural practices including: greenhouses, gardens, orchards, vineyards and native landscapes. Ag Labs I, II, and III can be taken in any order.

AGRI 117 **1 credit**
Agriculture Lab II

This course provides hands-on opportunities and experiences through organized class activities and projects for winter agricultural practices including: greenhouses, gardens, orchards, vineyards and native landscapes. Ag Labs I, II, and III can be taken in any order.

AGRI 118 **1 credit**
Agriculture Lab III

This course provides hands-on opportunities and experiences through organized class activities and projects for spring agricultural practices including: greenhouses, gardens, orchards, vineyards and native landscapes. Ag Labs I, II, and III can be taken in any order.

AGRI 130 **3 credits**
Agricultural Technologies

Explores the significant aspects of modern agricultural systems,

mechanization and sustainable technology industries. Instruction will include such topics as cropping and food processing, power and delivery, mechanics, maintenance and repair, soil, water, air conservation and employment and careers in agricultural technologies and related industries.

AGRI 161 **2 credits**
Introduction to Plant Science

Provides a comprehensive introduction to the agricultural disciplines of the plant science world. Instruction includes plant classification, plant anatomy, physiology, and propagation; the interactions of soil, water and temperature; and dynamic plant science subjects such as genetic engineering and biotechnology.

AGRI 162 **3 credits**
Introduction to Soils

This course is designed to introduce students to soil science, the formation of soils, its classification, physical and chemical properties, soil fertility, life in the soil and plant nutrition. Instruction will introduce students to the impact healthy soils have on plant and animal communities and the ecosystems of our state.

AGRI 189 **1-5 credits**
Agriculture Leadership

Schedule and participate in industry-related activities that enhance leadership capabilities. With guidance from an instructor, students develop a written plan outlining the anticipated leadership experiences and complete a portfolio detailing the completed experiences with a self-assessment of the leadership qualities gained. Out-of-pocket fees/expenses may be required. Prerequisites: Instructor's signature.

AGRI 254 **5 credits**
Integrated Pest Management

Classification, morphology, anatomy, growth and development, ecology and management of arthropod, weed, disease and vertebrate pests and their natural enemies. History of pest management that includes development of IPM strategies and tactics and how they are utilized in ecologically-based pest management programs.

AGRI 255 **5 credits**
Field Based Integrated Pest Management

Lecture and lab oriented class emphasizing the use of integrated pest management (IPM) in horticulture situations of the Pacific Northwest. Identification and biology of insects, mites, diseases, and weed pests that affect plants. Hands-on experience with current methods for monitoring and managing major pests.

AGRI 261 **5 credits**
Plant Science

Develops an understanding of basic plant morphology and physiology emphasizing horticultural science and fruit tree crops. Topics include form and function of plants, plant metabolism, plant growth and development, reproduction, techniques of fruit tree improvement, and plant/environment interaction.

AGRI 262 **5 credits**
Introduction to Pomology

Introduction to the horticultural principles and practices used in deciduous tree fruit production and orchard management. Topics include cultivars, root stocks, climate and environment, orchard systems, orchard establishment, pruning and training, flowering, pollination, fruit set, fruit growth and thinning, fruit maturation, harvest and storage, hardiness, and acclimation.

AGRI 263 **5 credits**
Soils

Introduction to basic concepts of soil science, plant nutrition and water management. Topics include soil formation and development, soil structure and composition, physical properties of soils, soils mineralogy, soil chemistry, soil fertility, fertilizers, irrigation management, and plant, soil and water relationships.

AGRI 264 **5 credits**
Post Harvest Technology

In-depth studies of principles and practices of deciduous tree fruit production in the Northwest, including: fruit maturation and ripening, indexes of maturity, harvesting, fruit tree acclimation, hardiness, fruit anatomy, cultivar identification, rodent control, and orchard floor management.

AGRI 265 **5 credits**
Crop Growth & Development

Principles and practices of deciduous tree fruit production in the Northwest, including pruning, formation and renovation of bearing trees, care of non-bearing trees, rootstocks, inter-stems, dwarf fruit trees, tree structure, growth, orchard systems, orchard establishment in new and old sites.

AGRI 266 **5 credits**
Crop Production Management

In-depth studies of principles and practices of deciduous tree fruit production in the Northwest. Includes flower bud initiation and development, pollination, fertilization, pollinizers, fruit set and development, thinning and alternate bearing, frost control, fruit tree propagation, and summer pruning.

AGRI 268 **5 credits**
Organic Agricultural Production

In this course, learn to grow and harvest vegetables, fruits and herbs organically. Learn to prepare and sell produce to local organic markets. Prerequisites: AGRI 261 and AGRI 263 recommended.

AGRI 269 **5 credits**
Organic Plant Nutrition

In-depth study of organic plant nutrition. Emphasis will be on how essential nutrients affect plant growth and development and food production, including the inter-relationships between organic nutrients and soil fertility. Composting and soil building practices will be emphasized. Prerequisites: AGRI 261 recommended.

AGRI 289 **5 credits**
Sustainable Agriculture and Food Systems

Examination of social, economical and ecological consequences of the modern, industrial agriculture paradigm. Topics include history of agriculture, worldviews, the sustainability concept, alternative agriculture systems, world food systems, agro ecology, ecological economics, biotechnology, local food systems and the geography of hunger.

AGRI 196/296 **1-5 credits**
Cooperative Work Experience

Intended to continue providing authentic experiences in the world of work by applying knowledge and skills learned in the classroom to a working environment. An expanded portfolio of learned experiences will document the specific abilities gained through working cooperatively in a business. Variable credit. Prerequisites: instructor's permission.

American Sign Language**ASL& 121** **5 credits**
American Sign Language I

Beginning signing for communication using American Sign Language. Provides an understanding of the conceptual aspects of the language. Addresses sentence structure. Includes the manual alphabet and approximately 500 signs for words and phrases. Incorporates manual and non-manual markers. Introduces deaf history and culture.

ASL& 122 **5 credits**
American Sign Language II

Intermediate signing for communication using American Sign Language. Introduction to broader vocabulary and development and practice of conversational skills. Additional information regarding the history and culture of ASL and the deaf is explored. Prerequisites: ASL&121 or instructor's signature.

Anthropology**ANTH& 100** **5 credits**
Survey of Anthropology

A general introduction to the four fields of anthropology: biological anthropology, archaeology, anthropological linguistics and sociocultural anthropology. The approach will be scientific and evolutionary, the focus will be the order Primates, and the emphasis will be on the relationship between the biological and cultural aspects of being human.

ANTH& 204 **5 credits**
Archaeology

Introduction to human cultural evolution as revealed by the interpretations of the material remains of our cultural past. Includes a critical look at the history of archaeology, its methodology and the accompanying analysis of data that focuses on cultural change.

ANTH& 205 **5 credits**
Biological Anthropology

Study of the origins and adaptations of the human species with a focus on human diversity. Includes the scientific investigation of the primate fossil record and living populations of monkeys, apes and humans. Includes laboratory.

ANTH& 206 **5 credits**
Cultural Anthropology

Introduction to basic methods and theories used by sociocultural anthropologists in the field, with a focus on the dynamic nature of culture. Social and cultural variations of humankind will be analyzed by comparing the world views of various Western and non-Western peoples.

ANTH& 207 **5 credits**
Intro to Linguistics

Survey of major subfields of linguistics including phonetics, phonology, morphology, syntax, semantics, language acquisitions and sociolinguistics. Prerequisites: completion of ENGL& 101 with a "C" or better. (Formerly ANTH 130.)

ANTH& 217 **5 credits**
Plateau Native Peoples

An overview of the culture and culture areas inhabited by the Sahaptian and Salish nations of the Plateau Region. A historical

and contemporary view of the life ways, including Indian/non-Indian relations, adaptations and effects of contact on the Salish and Sahaptian cultures in the Plateau Region.

ANTH 220 **5 credits**
Cross-Cultural Studies

This is a discussion/seminar-oriented approach to cultural comparisons. Two or more cultural experiences will be compared with the American example and non-ethnocentric conclusions reached.

Art

ART& 100 **5 credits**
Art Appreciation

Appreciation of various visual art forms with emphasis on the history, materials and aesthetics of art (not a studio course).

ART 106 **5 credits**
Design: 2-Dimensional Composition and Color

Introduction to the elements and principles of two-dimensional design and composition. Includes study of planar structure, depth illusions, figure-ground relationships and color theory.

ART 107 **5 credits**
3D Design: Introduction to Sculpture

Introduction to the elements and principles of sculpture and three-dimensional composition through a variety of processes and materials. Emphasis on spatial structure, basic volumes, and relationships of form and space.

ART 110 **5 credits**
Drawing I

Introduction to the principles of drawing from observation. Investigation of proportion, modeling and perspective with various drawing media. Prerequisite: ART 106 recommended.

ART 111 **5 credits**
Figure Drawing I

Introduction to the principles and processes of drawing the human figure. Investigation of proportion, gesture and composition with various drawing media from live models.

ART 113 **5 credits**
Drawing II

Continuation of study of the principles of drawing from observation, with investigation of proportion, modeling and perspective in various drawing media. Prerequisite: ART 110.

ART 116 **5 credits**
Drawing: Figure II

Continuation of study of the principles and processes of drawing the human figure. Investigation of proportion, gesture and composition with various drawing media from live models. Prerequisite: ART 111.

ART 117 **5 credits**
Drawing: Figure III

Continuation of study of the principles and processes of drawing the human figure. Investigation of proportion, gesture and composition with various drawing media from live models. Prerequisite: ART 116.

ART 130 **5 credits**
Graphic Design Technology I

An introductory, comprehensive step-by-step instruction and explanation of the "how" and "why" behind the industry standard software skills of Adobe Creative Suite, including InDesign, Photoshop and Illustrator. Students will be introduced to each feature as they work through information, including projects, reviews and step-by-step tutorials. Prerequisites: basic computer skills required or instructor's signature.

ART 131 **5 credits**
Graphic Design Technology II

Study of industry-standard software and how to integrate these programs into seamless communication, while producing works that conform to design principles and client expectations. Learn essential graphic-design terminology and continue developing knowledge and skills through advanced, hands-on projects implementing vector illustrations, page layouts, image manipulation and typography. Prerequisites: ART 130 required or instructor's signature.

ART 132 **5 credits**
3D Digital Design 1: Intro to 3D Comp Aided Model

Provides an introduction to computer-aided three-dimensional modeling technology used by designers in various disciplines including industrial design, graphic design, Web design, game design, sculpture, and animation.

ART 133 **5 credits**
3D Digital Design 2: Adv Model, Rendering & Pres

Provides further development of skills in the computer-aided three-dimensional modeling technology used by designers in various disciplines including industrial design, graphic design, Web design, game design, sculpture and animation. Focus is on developing advanced skills in rendering and presentation.

ART 134 **5 credits**
Introduction to Graphic Design

Introductory studio inquiry into graphic communication, including concepts and practical applications of traditional and contemporary visual art. Covers symbols, typography, information design, visual concepts and three-dimensional graphic design. Lectures, readings, demonstrations, slide presentations and group exercises are applied to visual problem solving, using digital hardware and software tools. Prerequisites: ART 130 (may be taken concurrently), or instructor's signature.

ART 135 **5 credits**
Graphic Design I

Covers foundations of two-dimensional visual graphic design, using basic computer skills, techniques and technology. Classic design elements of balance, harmony, variety and other design principles are explored and employed toward projects covering line and shape, type combinations, typography as design elements, color composition, drawing, photo, and collage. Prerequisites: ART 130, ART 131 (may be taken concurrently), or instructor's signature.

ART 137 **5 credits**
Typography

Focuses on using typography as the primary visual in design exploration, with text introduced as a design element. Includes font classification, composition and production techniques. Projects cover typographic history, effective use of type and

ART 213 **5 credits**
Watercolor I

Introduction to the principles and processes of transparent watercolor painting. Investigation of color and composition with various studio and outdoor subjects. Prerequisites: ART 106 or 110 recommended.

ART 217 **5 credits**
Native American Beading I

Introduction to basic materials, cultural styles and techniques of Native American beading. Three-color Peyote stitch and two-needle flatwork articles will be created.

ART 218 **5 credits**
Native American Beading II

Continued study in the materials, cultural styles and techniques of Native American beading. Seven colors for Peyote stitch and flatwork with student-researched designs. Prerequisite: ART 217.

ART 219 **5 credits**
Native American Beading III

Advanced study of the materials, cultural styles, and techniques of Native American beading, including beading onto leather and completion of a large project. Prerequisites: ART 218.

ART 220 **5 credits**
Painting: Advanced

Advanced study of the principles and processes of oil and/or acrylic painting. Emphasis on development of individual approaches to form and media. May be repeated. Prerequisite: ART 212.

ART 222 **5 credits**
Drawing: Advanced

Advanced study of the theory and practice of drawing. Emphasis on the development of individual approaches to form and media. Prerequisite: ART 113.

ART 224 **5 credits**
Printmaking 1

Introduction to the art of printmaking, including studio problems and individual design development. Students will learn to use intaglio and relief processes to create editions of fine art prints. Prerequisites: ART 106 or ART 110 recommended.

ART 225 **5 credits**
Printmaking: Advanced

Advanced study of the theory and practice of printmaking. Emphasis on the development of individual approaches to form and media. Prerequisites: ART 206, ART 208 or ART 224.

ART 233 **5 credits**
Packaging Design

Packaging design combines marketing and graphics with an emphasis on three-dimensional design. Packages are analyzed and positioned from a marketing point of view. Brand marks, visual graphics and color schemes are developed for individual products and more sophisticated related product lines. Typical assignments include food, fragrance and mass-market packaging designs. Prerequisites: ART 135 or instructor's signature.

ART 234 **5 credits**
Graphic Design II

Studio course covering the process and purpose of graphic design. Projects include developing graphic design solutions for logos, branding, book jackets, packaging, posters, and advertising. Components of the design process including typography, layout,

two-dimensional design principles, the job search, and student portfolios will be covered. Prerequisites: ART 139 or instructor's signature.

ART 235 **5 credits**
Web Graphic Design

Introduction to Web Site Graphic Design stressing fundamental principles and their application to the Web. Beyond mastering technical details of software, the course focuses on the essential building blocks of color, type, and layout, in working toward professional, appealing & functional website designs. Prerequisites: ART 234 or instructor's signature.

ART 236 **5 credits**
Graphic Design - Branding

Capstone class investigates each phase of the branding process through comprehensive coverage of key brand applications in graphic design and advertising. Gain insight into the art of designing individual brand applications: brand identity, promotional design, identification graphics, websites and advertising. Develops strategies for generating ideas and creating brands. Prerequisites: ART 235 or instructor's signature.

ART 250 **5 credits**
Ceramics: Advanced

Advanced study of the theory and practice of ceramics. Emphasis on the development of individual approaches to form and media. May be repeated. Prerequisites: ART 152.

ART 256 **5 credits**
Sculpture: Advanced

Advanced Sculpture builds upon skills from previous sculpture classes, developing greater technical and conceptual skills in three-dimensional visual art practices. Students develop a sophisticated body of three-dimensional work, and a directed, productive approach to studio practice. Prerequisites: ART 155.

Astronomy**ASTR& 101** **5 credits**
Introduction to Astronomy

Explore the universe through scientific analysis of astronomical images, observations and measurements. Learn the history of astronomy, the nature of light, how to locate and identify objects in the night sky, how the solar system originated, stars, galaxies, and the expansion of the universe. Indoor and outdoor laboratory exercises. Prerequisites: MATH 093 or higher math.

Automotive Technology**AUTO 100** **1 credit**
Shop Procedures

Includes use and maintenance of special tools and equipment, service and repair record keeping, use of technical reference materials, and regulations governing the automotive repair industry. Special emphasis placed on development of a positive attitude toward personal safety, a safe workplace and treatment of hazardous materials. Prerequisites: instructor's signature.

AUTO 110 **4 credits**
Electrical Systems

Modular, self-paced course presenting fundamental principles and terminology. Ohm's Law, wiring diagrams, diagnostic

AUTO 219 **4 credits**
Engine Drivability

Modular, self-paced, instructor-guided course covering diagnosis of actual live drivability problems and use of diagnostic equipment, including standard-industry scopes and scan tools. Leadership and human relations are an integral part of instruction. Prerequisites: AUTO 100, 113, or instructor's signature.

AUTO 220 **12 credits**
Advanced Technical Practices

Designed as a review of previously completed classes as selected by the student and the advisor/instructor for the purpose of review and/or area specialization. Course outline consists of a composite of the learning competency packets that the student has completed during previous participation in automotive classes. Prerequisites: instructor's signature.

AUTO 250 **5 credits**
Diesel Engine Construction

Modular, self-paced course covering internal combustion and mechanical systems of diesel engine components and operation. Diagnosis of component systems malfunctions and practical application in diagnosing cylinder block and head performance and repair. Leadership and human relations are an integral part of instruction. Prerequisites: industry experience and instructor's signature.

AUTO 260 **5 credits**
Diesel Fuel & Ignition

Intermediate course focusing on the function, properties and characteristics of diesel fuel. Learn about high- and low-pressure fuel systems, hydraulically actuated electronic unit injector systems and high pressure common rail fuel injection systems. Students will also learn about air intake systems including turbo/blower applications. Prerequisites: industry experience and instructor's signature.

AUTO 270 **5 credits**
Diesel Diagnosis & Repair

Advanced course focusing on exhaust gas recirculation and exhaust after treatment systems and components. Identify and learn the purpose of onboard diagnostics, and learn to use scan tools and lab scopes in the diagnostic procedures of OBD fault detection and emissions monitors. Prerequisites: industry experience and instructor's signature.

AUTO 291 **2 credits**
Auto Project Laboratory IV

For second-year automotive students who require extra project laboratory time to update or enhance their skills to meet program or certification requirements. Students will be directed to complete ASE/NATEF tasks. Graded on a pass/fail basis. Prerequisites: enrollment in automotive program and completion of the first year certificate or instructor's signature.

AUTO 292 **2 credits**
Auto Project Laboratory V

For automotive students who require extra project laboratory time to update or enhance their skills to meet program or certification requirements. Students will be directed to complete ASE/NATEF tasks. Graded on a pass/fail basis. Prerequisites: enrollment in automotive program and completion of the first-year certificate or instructor's signature.

AUTO 293 **2 credits**
Auto Project Laboratory VI

For automotive students who require extra project laboratory time to update or enhance their skills to meet program or certification requirements. Students will be directed to complete ASE/NATEF tasks. Graded on a pass/fail basis. Prerequisites: enrollment in automotive program, completion of AUTO 217 or instructor's signature.

AUTO 196/296 **1-5 credits**
Cooperative Work Experience

Designed to provide students with on-the-job practical field experience. One credit for each five hours of work experience per week. Variable credit. Prerequisites: instructor's permission.

Biology**BIOL& 100** **5 credits**
Survey of Biology

Covers the basic biological principles and processes for the nonscience major. Includes a basic survey of cell biology, inheritance, reproduction, genetics, classification, evolution, ecology and principles of living systems. Includes laboratory.

BIOL 106 **5 credits**
Introduction to Marine Biology

An introductory course about marine life found in the ocean depths, at the polar extremes, in coral reefs, estuaries and in the open sea. The course includes a survey of plankton, marine plants and marine animals. In addition, marine communities, resources and human impacts on marine ecosystems will be covered.

BIOL 125 **5 credits**
Environmental Science

An introductory ecologically oriented biological sciences laboratory course studying, from an interdisciplinary perspective, the environmental problems confronting humanity. An understanding of the nature of the ecological crisis and their global implications will be emphasized. Includes laboratory.

BIOL 126 **5 credits**
Survey of Genetics

Investigation into the continuity of life, including Mendelian genetics, reproduction, population genetics, evolutionary processes, and environmental influences on individuals and populations. Emphasis is on human congenital conditions, reproduction and evolution. Prerequisites: recent college-level biology course or instructor's signature.

BIOL 127 **5 credits**
Northwest Environments

Field-oriented course exploring the animal life and vegetation of the Pacific Northwest. Local forests, rivers, lakes and deserts examined with emphasis on ecology and plant and animal identification. Includes extensive field work. Prerequisites: interest in our local flora and fauna.

BIOL 185 **5 credits**
Insects & Ecosystems

This course is designed to create an awareness and appreciation of arthropods (insects and their relatives) and their role in the health of the local ecosystem. Course concentrates on the identification, biology, natural history, and the interaction of

arthropods in their environments. Course designed for biologists, collectors and gardeners.

BIOL 186 **5 credits**
Survey of Plants of the Pacific Northwest

Identification and the natural history of plants in regional ecosystems of the Pacific Northwest. Students will be introduced to the principles of plant identification and survey techniques while studying the local plant communities of the region. Taxonomic and pictorial keys will be used to identify the plants and their role in their plant community will be stressed.

BIOL& 211 **5 credits**
Majors Cellular

Covers the structure and function of cells, metabolism, energetics, cell reproduction, and Mendelian and molecular genetics. Includes an introduction to the basic principles of bioinformatics. Recommended for science majors, pre-professional students and allied health majors. Includes lab component. Prerequisites: recent chemistry class recommended.

BIOL& 212 **5 credits**
Major Plants

Covers the structure and function of plants: plant anatomy, plant physiology, plant morphology, plant systematics and plant ecology. Plant evolution and diversity integrated throughout. Recommended for biology majors and pre-professional students. Includes laboratory. Prerequisites: BIOL& 211 with a grade of "C" or better or instructor's signature.

BIOL& 213 **5 credits**
Majors Animals

Covers the structure and function of animals. Evolution and ecology of animals introduced in the beginning, then integrated throughout in a survey of the major animal systems. Animal anatomy, physiology, ecology and evolution emphasized. Recommended for science majors, especially biology and pre-professional majors. Prerequisites: BIOL& 211 with C grade or better or equivalent or instructor's signature.

BIOL 216 **5 credits**
Plant Classification

Identification, classification and natural history of native plants in our regional ecosystems. Principles of plant classification and nomenclature will be introduced while studying the local native flora of the area. Includes laboratory and field study. Prerequisites: recent college-level biology course or instructor's signature.

BIOL 217 **5 credits**
Introduction to Ornithology

Study of birds: flight, classification, behavior (migration, breeding, communication), habitats and distribution, and populations and conservation. Lab emphasizes observation and identification skills. Includes laboratory and field work. Prerequisite: an interest in birds.

BIOL 218 **5 credits**
Insect Classification

Identification, classification and biology of adult insects represented in our local fauna. Includes basic insect biology, external anatomy, keying, sight identification, and collecting and preserving skills. Includes lecture, lab and field work. Prerequisites: recent college-level biology course or instructor's signature.

BIOL& 221 **5 credits**
Majors Ecology/Evolution

Major topics include the physical environment, how organisms interact with each other and their environment, evolutionary processes, population dynamics, communities, energy flow and ecosystems, human influences on ecosystems, and the integration and scaling of ecological processes through systems ecology. Prerequisites: one majors biology course such as BIOL& 211, 212 or 213.

BIOL& 221L **1 credit**
Majors Ecology Lab

Ecology lab to accompany Majors Ecology for those needing the lab component to Ecology. Hands-on, field-based ecology exercises, including terrestrial and aquatic insect sampling, restoration ecology work, bird capturing and marking, forestry hike, edge-effect exercise, and exercises in the WVC-constructed aquatic lab. Prerequisites: one majors biology course such as BIOL& 211, 212 or 213.

BIOL 230 **5 credits**
Ethnobotany

Survey of native plants of the Okanogan and their cultural, medicinal, and ecological importance to the First People and ecosystems of the Plateau Region.

BIOL& 241 **5 credits**
Human Anatomy & Physiology 1

Includes study of cells, tissues, and the skeletal, muscular, integumentary and nervous systems. Designed primarily for allied health majors. Prerequisites: BIOL& 211 with a grade of "C" or better or instructor's signature.

BIOL& 242 **5 credits**
Human Anatomy & Physiology 2

Continuation of Biology 241. Systematic treatment of special senses and endocrine, circulatory, respiratory, digestive, urinary and reproductive systems. Includes laboratory. Designed primarily for allied health majors. Prerequisites: BIOL& 241 with a grade of "C" or better or instructor's signature.

BIOL& 260 **5 credits**
Microbiology

Introduction to the biology of microorganisms. Emphasis on the relationship of microbes to disease, including prevention, immunology and treatment. Designed primarily for allied health majors. Includes laboratory. Prerequisites: BIOL& 211 with a grade of "C" or better or instructor's signature.

Business

BUS& 101 **5 credits**
Introduction to Business

Introduction to the basic principles of business. Surveys the stock market, economics, principles of capitalism, global business, ethics, social responsibility, small business, management, organization theory, labor relations, marketing, and finance. Emphasis placed on current events, using Web resources, and activities related to business and economics. Prerequisites: none, but ENGL& 101 (or current enrollment) preferred.

BUS 146 **5 credits**
Business Ethics

An in-depth view of the many ethical dilemmas encountered in

today's organizational environment. A case-study approach is used to gain an understanding of the complex forces that shape the morals and values which are used in ethical decision-making.

BUS 177 **5 credits**
Business Leadership Development

Leadership development and training emphasizing leadership theory, team building, and practical application through simulations. Additionally, students will understand their individual leadership style strengths and weaknesses.

BUS& 201 **5 credits**
Business Law

Introduction to legal institutions, processes, and legal reasoning. Topics include the law of contracts, torts, agency, sales, negotiable instruments, real property, personal property, business organizations, employment, government regulation, and ethics. Emphasis on legal reasoning, legal theory, and practical applications of legal issues as they relate to business. (Students may not get credit for both BUS 204 and BUS& 201).

BUS 230 **5 credits**
Introduction to Entrepreneurship

Introduction to the elements of successful entrepreneurship, business opportunity identification and assessment, economic development strategies, and development of an effective business plan.

BUS 240 **5 credits**
Principles of Management

Study of management theory and concepts to provide students with practical tools for planning, leading, organizing, staffing and controlling within a dynamic organizational environment. Decision-making techniques for developing competitive advantages based on cost, quality, innovation and speed are emphasized. Students will develop a comprehensive, industry-specific management project.

BUS 241 **5 credits**
Principles of Marketing

Problems and practices relating to the marketing exchange process. Emphasis on planning marketing strategies for product, price, promotion and distribution issues. Gain understanding of Integrated Marketing Communications systems approach, how to apply IMC concepts to both profit and nonprofit organizations. Develop a comprehensive, industry-specific marketing plan.

BUS 242 **5 credits**
Retail Management

A study of the highly competitive, rapidly changing retail business environment. Topics include product and services retailing, store management, e-tailing, consumer decision-making, growth, planning the strategic profit model and globalization issues. Retail management concepts are taught within a conceptual, theoretical, practical and strategic framework.

BUS 243 **5 credits**
Human Resources Management

Human resource management is concerned with managing people effectively in the workplace. Using theoretical and practical approaches, it examines the human resource manager's role and the role of all managers. Topics include philosophy, policies, organization, job design, employee selection, compensation/benefits, development, appraisal, promotion, discipline, termination and federal statutes.

BUS 245 **5 credits**
Small Business Management

Major focus is developing a business plan for a new or existing business, including market analyses and financial forecasts. Additional topics are human resource management, forms of ownership, operational planning, and establishing and maintaining competitive advantages. Formerly BUSA 245.

BUS 196/296 **1-5 credits**
Cooperative Work Experience

Designed to provide on-the-job practical field experience. One credit for each five hours of work experience per week. Variable credit class. Prerequisites: instructor's permission.

Business Computer Technology

BCT 100 **2 credits**
Basic Computer Keyboarding

An introductory course to develop basic keyboarding techniques with an emphasis on improving speed and accuracy. Course topics include alphabet, numeric and symbol keys.

BCT 103 **1 credit**
Computer Hardware Overview

Introductory exploration of computer hardware - what is in the box? Includes discussion of relationships between processor speed, memory and hard drive space as well as current storage options. This course provides the basic information to make a computer purchase decision. Part 1 of BCT 105 equivalency. Prerequisites: keyboarding skills, BCT 100, 101, 102 or instructor's signature.

BCT 104 **1 credit**
Operating Systems Overview

Use the basic functions in Windows to display files and computer status information, organize drives, files or folders efficiently, use the help function and locate information. Discussions will include variations found on Mac and Linux systems as well as expectations for new systems. Part 2 of BCT 105 equivalency. Prerequisites: BCT 101 and 103 or instructor's signature.

BCT 105 **5 credits**
Computer Applications

This course is an introductory level basic computer applications course and is designed for students with little or no computer experience. Students will learn how to use MS Office software. Students will also learn about file management, word processing, spreadsheets, database, and presentation software. The fundamentals of email are also covered. Prerequisites: BCT 100 Basic Keyboarding or instructor signature.

BCT 106 **1 credit**
Getting Started with Word Processing

Use basic Word functions to enter, edit, cut, copy, paste and reorganize text. Documents will be enhanced with graphics and tables. Use Word tools including spell checker, grammar checker, page layout, and references. Flyers, letters, template resumés and research papers will be produced. Part 3 of BCT 105 equivalency. Prerequisites: BCT 101 and 104 or instructor's signature.

BCT 107 **1 credit**
Getting Started with Spreadsheets

Use basic Excel functions to enter, edit, cut, copy, paste and reorganize text and data and create simple formula.

Spreadsheets will be enhanced with formatting and charts. Part 4 of BCT 105 equivalency. Prerequisites: BCT 101 and 106 or instructor's signature.

BCT 108 **1 credit**
Getting Started with Database

Use Microsoft Access to create a database and add basic elements such as tables, queries, forms and reports. Examine the features of built-in wizards. Either this course or BCT 109 is Part 5 of BCT 105 equivalency. Prerequisites: BCT 101 and 107 or instructor's signature.

BCT 109 **1 credit**
Getting Started with Presentation Graphics

Use presentation graphics software to create and view presentations. Enhance the presentation with pictures, shapes, SmartArt, tables and charts. Apply transitions. Either this course or BCT 108 is Part 5 of BCT 105 equivalency. Prerequisites: BCT 101 and 106 or instructor's signature.

BCT 112 **2 credits**
Records Management

Records management emphasizes principles and practices of effective management for both manual indexing and automated records systems. The manual indexing systems concept covers all standard indexing rules published by the Association of Records Managers and Administrators. Automated records systems provide the opportunity to work with computer databases encountered in business. Formerly BIT 171/CEC 106. Prerequisites: basic keyboarding skills.

BCT 116 **3 credits**
Professional Work Relations

This course focuses on interpersonal skills in the work place. Topics include: leadership, teamwork, employers' expectations and real world tools for resolving conflict in a simulated workplace.

BCT 118 **5 credits**
Customer Relations Management

This course prepares students to apply positive customer relations management skills including a 75 hour practicum. Topics include verbal and nonverbal communication skills, positive attitudes, listening, professional inquiry and conflict management. Students learn and adopt standard office procedures.

BCT 120 **5 credits**
Word Processing I

Uses a full-featured Windows word processing program to create personal and professional documents. Editing concepts and formatting techniques are used to create memos, letters, reports, flyers and newsletters. Prerequisites: BCT 100 Keyboarding and BCT 105 Computer Applications.

BCT 125 **2 credits**
Internet Use

Introduction to Internet basics, Web vocabulary, use of major search engines, evaluating websites and developing research skills. Designed to prepare students to research e-topics and conduct business activities. Discover how to search for specialized databases, resources and libraries. Look at current trends. Prerequisites: BCT 105 or instructor's signature.

BCT 128 **5 credits**
Business Math

Topics: Financial calculations, buying and selling goods, inventory systems, retail markup and discounts, simple and compound

interest, taxes, lending and problem solving strategies. Includes a review of basic fundamentals. Prerequisites: MATH 093.

BCT 130 **5 credits**
Spreadsheets

A Windows spreadsheet program is used to organize and analyze data. Topics include: cell formatting, formulas, functions, graphics, charts, auditing tools, consolidating and linking workbooks, what-if analysis and macros. Prerequisites: MATH 093, BCT 105.

BCT 150 **5 credits**
Database 1

Basic concepts and terminology of relational database management. Topics: plan, design and build databases and create tables, forms, reports and queries. Prerequisites: BCT 105.

BCT 160 **3 credits**
Presentation Graphics

Use Windows presentation graphics software to create, present and collaborate on presentations; use enhanced multimedia capabilities to deliver presentations with more impact; search reference materials, Internet services and other sources while working in presentation graphics software. May be repeated with different software. Prerequisites: BCT 105 or instructor's signature.

BCT 170 **2 credits**
Microsoft Outlook

Use Microsoft Outlook to store, track, and organize business and personal information. Topics include managing e-mail, calendar, tasks, notes, address book, message templates, mail merge, help, customizing Outlook and Web/Outlook integration. Prerequisites: BCT 105 or instructor's signature.

BCT 200 **5 credits**
Operating Systems

This course focuses on the fundamentals of operating systems, computer hardware and software concepts. Topics include: functions and features of operating system tools, systems and applications programs, file management, system customization, security, and maintenance.

BCT 205 **5 credits**
Business Communication

Provides learning and reinforcement in the art of communicating effectively in the business world. This is accomplished through planning, composing and evaluating written and/or oral communication and report writing. Current theories of communication, perception and cultural contexts will be used. Prerequisites: BCT 120 and ENGL 097 or placement score equivalent.

BCT 210 **5 credits**
Word Processing II

This course is designed for experienced Word users. It provides instruction in advanced word processing. Integrative learning is emphasized. Topics include advanced features of formatting and organizing content, collaborating on documents and customizing word processing software. May be repeated with different software. Prerequisites: keyboarding, BCT 120 or instructor's signature.

BCT 220 **5 credits**
Spreadsheets II

Create, format and audit workbooks at an advanced level using database functions, macros, templates, web tools, multiple workbooks, imported/exported data, data tables, scenario management, Solver, and VBA. Prerequisites: BCT 130, MATH 093.

BCT 230 **5 credits**
Database II

Advanced instruction in the theories and technical skills of database management systems; integrative learning is emphasized. Students will build relational databases and use advanced features and commands including VBA. Prerequisites: BCT 150.

BCT 240 **2 credits**
Microsoft Publisher

Basic publishing skills for creating newsletters, brochures, business cards, postcards, flyers for print, e-mail and the Web. Create a publication from scratch or use available business or personal designs software. Create, manage, revise, and distribute publications and use digital technology to enhance their work. Formerly CEC 135. Prerequisites: BCT 105, BCT 120.

BCT 250 **5 credits**
Desktop Publishing

Principles of design applicable to publications created using desktop publishing software and computer technology. Special attention is given to design principles, typography, and layout and production techniques.

BCT 251 **3 credits**
Web Publishing

Provides an introduction to Web-editing software Logic and layout for beginning Web page designers. Provides all the information necessary to plan effective and attractive Web pages. Included are helpful tips on how to make professional-looking Web pages. May be repeated with different software. Formerly BIT 225/CEC 140. Prerequisites: BCT 105 and BCT 125 or instructor's signature.

BCT 275 **3 credits**
Software Integrations

This project-oriented course will prepare students to utilize spreadsheet, database, presentation, publishing and word processing software to perform integrated tasks and functions. Students will complete projects and simulations that require them to integrate shared data and information between those programs. Prerequisites: BCT 105, BCT 120, and BCT 130.

BCT 283 **5 credits**
Administrative Management

Administrative management practices and principles, including the organizing process, office layout, office environment, office equipment and furniture, selecting office employees, training office employees, and budgetary and cost control.

BCT 284 **5 credits**
Project Management

Development of project management skills and their application in the business world. Includes development of skills in the core project management areas: scope management, time management, cost management and quality management.

BCT 196/296 **1-5 credits**
Cooperative Work Experience

Designed to continue providing on-the-job practical field experience related to business computer technology. One credit is earned for each five hours of work experience per week. Variable credit class. Prerequisite: instructor's permission.

Chemical Dependency Studies**CDS 100** **5 credits**
Survey of Chemical Dependency

Overview of historical and current definitions of substance use disorders. The effects of use on behavior, health, youth, family, special populations and society. Focus on the nature of addictions, causality, progression, assessment, scope, intervention, treatment and prevention.

CDS 101 **5 credits**
Physiological Action of Alcohol and Other Drugs

The human body's physical and behavioral response to alcohol and other drugs; current research findings; basic information and terminology essential for working on treatment teams with physicians and nurses, and for communicating with patients and with patients and families. Prerequisites: CDS 100, PEH 180.

CDS 106 **5 credits**
Case Management of Chemical Dependency Client

Counselor skill training in case planning and case management of the substance-abusing client. Overview of federal, state and agency policies and procedures, assessments, treatment, and discharge planning. Prerequisites: CDS 100, 101 or instructor's signature.

CDS 110 **4 credits**
Cultural Diversity Counseling for Chemical Dependency Studies

A course of study designed to improve knowledge and skills of the Chemical Dependency Professionals while working with clients/patients with different cultural backgrounds. Prerequisites: CDS 100.

CDS 140 **2 credits**
Chemical Dependency Relapse Prevention

Course will discuss the phenomena of post acute withdrawal as well as ensuing issues of relapse as they pertain to the disease of addiction, and the reuse of drugs after treatment as a separate and distinct episode not associated with treatment failure. Materials discussed are the work of T. Gorski. Prerequisites: CDS 100, 101 or instructor's signature.

CDS 150 **3 credits**
Counseling the Addicted Adolescent

An overview class covering the needs of the addicted adolescent. Covers many developmental, cognitive and physiological issues that are complicated by an adolescent's use of alcohol or other drugs. Prerequisites: CDS 100, CDS 101 or instructor's signature.

CDS 202 **5 credits**
Counseling Theory and Techniques

Overview of communication skills, theories and techniques used in developing a common understanding of addictive behavior. Comprehensive review of how people behave and an introduction to counseling methods to facilitate change in working with chemically dependent patients. Prerequisites: CDS 100, CDS 101 or instructor's signature.

CDS 204 **4 credits**
Group Process in Chemical Dependency Treatment

Theoretical foundation of group counseling as applied to alcohol/drug treatment. Use of groups in inpatient and outpatient treatment. Use of information in groups to foster change and growth. Dynamics of group interaction/group composition, goal

setting, managing tasks, roles and normative boundaries; skill practice. Prerequisite: CDS 100, CDS 101 or instructor's signature.

CDS 205 **4 credits**
Chemical Dependency and the Family

Models of family therapy and overview of structural, functional and systems approaches as applied to the chemically dependent family. Treatment issues related to family, stages of adaptation to chemical dependency, family roles, co-dependency, children of alcoholics, and adult children of alcoholics. Prerequisites: CDS 100, CDS 101 or instructor's signature.

CDS 207 **5 credits**
Law and Ethics in Chemical Dependency Counseling

This course focuses on contemporary legal and ethical issues in the field of chemical dependency counseling including professional and peer relationships, boundaries, NADAAC code of ethics, multiple relationships and values in the counseling relationship and laws surrounding counseling including confidentiality and HIPPA regulations. Prerequisites: CDS 100, CDS 101 or instructor's signature.

CDS 210 **3 credits**
Community Prevention

Focuses on prevention of alcohol and other drug abuse among children and adolescents. Discusses the history of prevention, current research, community needs assessments and best/promising practices in the field of prevention, and how to design and evaluate an effective prevention program.

CDS 295 **1-5 credits**
Field Experience in Chemical Dependency

Supervised work experience in a chemical dependency treatment agency approved by college faculty. Prerequisite: instructor's signature.

Chemistry

CHEM 106 **5 credits**
Drugs in Society

Explores the basis of drug action, major categories of drugs, as well as risks and benefits of drug use from an individual, social and economic viewpoint. Other topics include historical perspective and ethno pharmacology; delivery, absorption, distribution, metabolism and elimination of drugs; modern drug development and regulation. Prerequisites: ENGL& 101 (Recommended: MATH 097 or MATH 098).

CHEM& 110 **5 credits**
Chemical Concepts

Chemical concepts course for the nonscience student. Basic chemical principles and laboratory techniques are applied to contemporary topics such as nuclear chemistry, energy use and pollution. While not intended for students planning to take additional chemistry classes, course may be helpful for students with limited chemistry background. Includes laboratory.

CHEM& 121 **5 credits**
Introduction to Chemistry

Inorganic chemistry for allied health students or for individuals needing a general science transfer credit. Includes laboratory. Prerequisites: MATH 097 or MATH 099 or MATH 100A or equivalent or appropriate assessment score.

CHEM& 131 **5 credits**
Introduction to Organic/Biochemistry

General introductory Organic and Biochemistry course satisfying allied health and agriculture program requirements. Study of reactions and nomenclature and their applications to living systems. Includes laboratory. Prerequisites: CHEM&121 or equivalent.

CHEM& 161 **5 credits**
General Chemistry I w/lab

Study of states of matter, molecular structure, thermodynamics and reactions. For science majors, engineers and other student requiring a year or more of college chemistry. Includes laboratory. Prerequisites: A year of high school chemistry or CHEM& 121 and MATH 105 or MATH& 141 (preferred) or equivalent, or appropriate math assessment score, or instructor's signature.

CHEM& 162 **5 credits**
General Chemistry II w/lab

Study of periodic trends, molecular structure, chemical bonding, liquids and solids, kinetics, solutions, equilibrium and acid base chemistry. Includes laboratory. Prerequisites: CHEM& 161.

CHEM& 163 **6 credits**
General Chemistry III w/lab

Descriptive chemistry of metals, aqueous chemistry, equilibria related to solubility and thermodynamics, and electrochemistry. Discussion and measurement of the qualitative and quantitative chemistry of common cations and anions. Includes two laboratories per week. Prerequisites: CHEM& 162.

CHEM& 261 **6 credits**
Organic Chemistry w/Lab I

The first of a three-quarter sequence in organic chemistry for university transfer, intended primarily for science majors and those fulfilling requirements for professional health science careers such as medicine, dentistry and pharmacy. Topics include structure, nomenclature, physical properties, reactions and synthesis of the main types of organic compounds. Lab included. Prerequisites: CHEM& 163.

CHEM& 262 **6 credits**
Organic Chemistry w/Lab II

The second of a three-quarter sequence in organic chemistry for university transfer, intended primarily for science majors and those fulfilling requirements for professional health science careers such as medicine, dentistry and pharmacy. CHEM& 262 furthers the development of the properties, transformations and identification of organic molecules. Lab included. Prerequisites: CHEM& 261.

CHEM& 263 **6 credits**
Organic Chemistry w/Lab III

The third of a three-quarter sequence in organic chemistry for university transfer, intended primarily for science majors and those fulfilling requirements for professional health science careers such as medicine, dentistry and pharmacy. CHEM& 263 furthers discussion of the properties, transformations and identification of organic molecules, including biomolecules. Lab included. Prerequisites: CHEM& 262.

Chican@ Studies

CHST 112 5 credits Chicano/a History: An American Journey

Examines the Chicano/a (Mexican & Mexican American) experience in North America within a historical context. Beginning with an examination of the pre-Columbian Mesoamerican societies through European conquest and up to 20th century, students will engage in the following areas of scholarly inquiry: Nation development, migration/immigration, race, class, culture, political activism and civil rights.

CHST 115 5 credits La Chicana: Gender, History and Intellectualism

Investigate the social construction of La Chicana/Mexicana gender in both Mexico and the United States, but primarily in the United States. This investigation will include literary analysis, historical perspectives, feminist approaches and Chicana intellectualism. Additional points of study include Machismo, gender manifestations and Chicanas in contemporary society.

CHST 120 5 credits Identity, Art and Culture

Critically investigates the production and consumption of Chicano/a forms of culture/identity. Examines Chicano/a culture as a dynamic process, which includes theater, literature, poetry, art, film and music.

Communications

CMST& 101 5 credits Introduction to Communication

Introduction to the history, theory and practice of human communication. Development of effective communication skills for use in a variety of contexts, including, but not limited to: intrapersonal, interpersonal, intercultural, small group, relationships, workplace/organizational settings and new technology.

CMST 130 5 credits Survey of Digital Communications

Introduces students to digital communications, with an emphasis on the social impact of new media. Students explore emerging technologies and study their application in a variety of environments. Empowers students to critically analyze and create basic digital projects, while learning how to be responsible digital citizens. Prerequisites: ENGL 097 equivalency or higher.

CMST& 210 5 credits Interpersonal Communications

Principles, processes, and practices of interpersonal communication related to motivation, knowledge, and skills to appropriately and effectively communicate in given interpersonal situations. Focus is on perception of self-concept and others, including diversity, verbal and non-verbal cues, and strategies for understanding and improving interpersonal relationship dynamics. Prerequisites: concurrent enrollment in ENGL 097 or higher; successful completion of ENGL& 101 highly recommended.

CMST& 220 5 credits Public Speaking

Preparation and delivery of speeches to a public audience. Focus

is on the improvement of one's communication skills through topic choice, research, organization and outlining of content; use of voice, body and self-confidence. Other areas covered are audience listening skills and speaker evaluations. Prerequisites: ENGL 097 equivalency or higher.

Computer Science

CSC 101 5 credits Introduction to Programming

Introduction to computer programming. Intended for non-science majors. Explores the basics of computer programming using the BASIC language. Topics include console I/O, variables, expressions, decisions, arrays, repetition, console graphics, file I/O and functions. Prerequisites: MATH 096 or MATH 098, word processing competency.

CSC 151 5 credits Web Design I

Introduction to Web content development using HTML and a variety of Web development tools. Prerequisite: familiarity with Windows Operating System.

CSC 152 5 credits Web Design II

Web application client development, using interactive technologies such as JavaScript, JavaScript libraries, CSS, HTML, and asynchronous HTTP requests. Prerequisites: CSC 151 or instructor permission.

CSC 153 5 credits Web Design III- Web Application Programming

Web application server development, including writing software that runs on the server, database integration, and delivering Web pages generated from HTML templates. Prerequisites: CSC 152 or instructor permission.

CSC 154 5 credits Macromedia Flash

Introduces the Macromedia Flash multimedia authoring platform. Students will use Macromedia Flash to integrate images, drawing, audio, video and text into multimedia applications that can be published to an Internet website.

CSC 201 5 credits Programming Fundamentals

Introduces programming fundamentals using a procedural, object-oriented language. Topics include expressions, simple I/O, data storage, variable usage, decision and repetition control structures, functions and parameter passing, design principles, and problem solving strategies. Prerequisites: MATH 099, word processing competency.

CSC 202 5 credits Intermediate Programming

Introduces the concept of object-oriented programming to students with a background in the procedural paradigm. Topics include project management, classes, APIs, instantiation of objects, references, lists, file I/O of records, inheritance, composition, polymorphism, interfaces, exception handling, computer graphics and basic GUI programming. Prerequisites: CSC 201.

CSC 203 **5 credits**
Data Structures and Algorithms

Introduces the fundamental concepts of classic data structures with associated algorithms. Topics include recursion, searching and sorting lists (arrays, linked lists, stacks, queues, vectors), algorithmic analysis, big O notation, expression parsing, binary search operations, heaps, priority queues, other types of trees, Huffman encoding, toolbars, hash tables, and graphs. Prerequisites: CSC 202.

CSC 241 **5 credits**
SQL Database Development

Explores the use of SQL to create, populate and maintain databases. Topics include entity relations, normalization, referential integrity, join types, selections, insertions, updates, deletes, constraints, views, indexing, stored procedures, triggers, cursors, ER modeling and database design. Prerequisite: CSC 201.

Computer Technology**CTS 105** **3 credits**
Survey of Networking

Networking for non-CTS majors or students seeking additional background on networking. Introduces the basics of networking, such as peer-to-peer, LANs, and WANs. Discover the history behind networking and how people use networking in the real world. Understand how computers share information. Learn the vocabulary of networking-understand the terms, abbreviations and acronyms.

CTS 110 **5 credits**
Computer Hardware

Computer hardware troubleshooting. Designed to help prepare students for industry certifications as well as provide practical hands-on experience.

CTS 115 **5 credits**
Computer Software

Fundamentals of supporting and troubleshooting computer operating systems. Prepare to pass CompTIA's A+ OS certification exam. Covers a wide range of material about operating systems, from using the different Windows operating systems to demonstrating how the boot process works, as well as installing, supporting and troubleshooting the different Windows operating systems.

CTS 120 **5 credits**
Introduction to Networking

Beginning course in data networks. Emphasis is placed on the OSI model and discovery of modern data network design. Learn the functions and appropriate use of network hardware, software and protocols. Helps prepare students to pass CompTIA's Network+ certification exam.

CTS 130 **5 credits**
Client Operating Systems

Familiarizes students with client operating systems (Windows, Linux, Mac OS platforms) with emphasis on connectivity, troubleshooting and architectural models. Gain hands-on experience in the process of installing and configuring network clients.

CTS 140 **5 credits**
Server Operating Systems

Introduces students to the fundamentals of planning, implementing, managing and troubleshooting network servers in a modern LAN environment. Topics include connectivity, security, maintenance and disaster planning/recovery. Students will install and configure windows server.

CTS 150 **5 credits**
Network Infrastructure

Prepares students for industry certification exams. Learn to manage and maintain a Windows server environment. Provides an overview of networking, IP addressing basics, configuring a network interface, implementing Dynamic Host Configuration Protocol (DHCP), managing and monitoring DHCP and DNS. Prerequisites: CTS 140 or instructor's permission.

CTS 160 **5 credits**
Active Directory

Introduces Active Directory and prepares students to plan, configure and administer Active Directory infrastructure. Learn how to configure the Domain Name System (DNS) to manage name resolution, schema and replication and how to use Active Directory to centrally manage a network. Prerequisites: CTS 140 or instructor's permission.

CTS 195 **2 credits**
Technology Seminar

Regularly scheduled seminar covering contemporary news and issues dealing with technology. May be repeated with different topics.

CTS 221 **5 credits**
Introduction to Linux

Provides a comprehensive overview of the Linux operating system. Become familiar with the Linux command-line environment, utilities and applications, as well as the graphical X Window environment.

CTS 222 **5 credits**
Security Fundamentals

In this introductory course in network security, learn security fundamentals. Includes identification of security issues in modern networks and how to design a network to avoid security problems. Helps students prepare for the CompTIA Security+ Certificate.

CTS 225 **5 credits**
Web Server Management

Training in setting up, managing, securing and troubleshooting Web servers in both Windows and Linux environments. Prerequisites: CTS 140 or instructor's permission.

CTS 232 **5 credits**
Network Design

Advanced course that covers LAN/WAN Network design issues. Prerequisites: CTS 150, 160 or instructor's permission.

CTS 235 **5 credits**
Managing Mail and News Servers

Covers a wide range of material about e-mail servers, from installation, configuration, administration, troubleshooting, and maintenance. Prerequisites: CTS 140 or instructor's permission.

CTS 295 **2 credits**
Technology Seminar

Regularly scheduled seminar covering contemporary news and issues dealing with technology. May be repeated with different topics.

CTS 196/296 **1-5 credits**
Cooperative Work Experience

Cooperative work experience is intended to provide authentic experiences in the world of work by applying knowledge and skills learned in the classroom to a working environment. A summary portfolio of learned experiences will document the specific abilities gained through working cooperatively in a business. Variable credit class. Prerequisites: Computer Technology Systems (CTS) instructor written permission.

Cooperative Work Experience**CWE 195** **1-5 credits**
Cooperative Work Experience

Provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with on-the-job training. Students must participate in 10 hours of seminars on campus.

CWE 196/296 **1-5 credits**
Cooperative Work Experience

Cooperative work experience is intended to provide authentic experiences in the world of work by applying knowledge and skills learned in the classroom to a working environment. Variable credit class. Prerequisites: instructor's permission.

Criminal Justice**CJ& 101** **5 credits**
Introduction to Criminal Justice

Overview of the scope of a law enforcement officer, corrections officer, and probation officer's role. Jurisdiction of local, state and federal agencies, career opportunities and qualifications for recruitment are emphasized. Includes administration of justice concepts and history of the criminal justice system. Formerly CJ 101.

CJ& 105 **5 credits**
Introduction to Corrections

An introduction and survey of the principles and practices of the corrections field in criminal justice settings. The objectives of probation and parole with an overview of rehabilitation methods and institutional settings are emphasized. (Formerly CJ 210.)

CJ& 106 **5 credits**
Introduction to Juvenile Justice

Course covers the elements, functions and purpose of juvenile law. Arrest, detention, petition, records, interviewing, interrogation, overview of contributing factors to delinquency and the officer's role in prevention are emphasized. (Formerly CJ 130)

CJ& 110 **5 credits**
Criminal Law

Basic concepts of Titles 9 and 9A of the Revised Code of Washington are presented in this course. Elements, purposes and functions of criminal law are emphasized. (Formerly CJ 120.)

CJ 140 **5 credits**
Criminal Justice Report Writing

Presents technical writing content specific to the criminal justice system including standard grammar/punctuation and basic composition skills. Content includes forms such as traffic citations, traffic accidents or evidence tags, and a variety of technical reports for which information may be obtained from investigations, interrogations or other written reports.

CJ 150 **5 credits**
Laws of Arrest, Search and Seizure

Concepts of how to conduct a lawful arrest; search and seizure of suspects and evidence; and practicalities of conducting a search of persons, cars and houses are emphasized in this course.

CJ 201 **5 credits**
Criminal Investigations

Origins and development of criminal investigation. Emphasis on the scientific method, interrelationship of criminal investigations with criminalistics; recognition, documentation and collection of physical evidence; rules of evidence including admissibility, chain of custody and hearsay. Case studies will be used to illustrate the methodology of criminal investigation.

CJ 210 **5 credits**
Police Organization & Administration

Introduces principles, concepts and theories relating to a police organization and administration within line and staff functions in the uniformed and investigative units.

CJ 220 **5 credits**
Crime Scene Investigations

All aspects of crime scene investigations. Areas of emphasis include fundamentals and techniques of investigations; crime scene search; field applications in the development, collection and preservation of physical evidence. Classification and rules of evidence, admissibility, weight and value of evidence, witnesses, and presentation of evidence in court also are included.

CJ 230 **5 credits**
Crisis Intervention

Theories of perception, emotion, motivation, personality and nonverbal communication used as tools by police officers in everyday contacts. Understanding and predicting human behavior in common police situations. Develop objective approaches to human relations problems and the ability to exercise skills in personal power and nonjudgmental communication.

CJ 240 **5 credits**
Introduction to Traffic Investigations

Gain basic skills and knowledge in traffic accident investigation. Practical applications and techniques required to conduct a field investigation are emphasized. Basics of traffic control and traffic laws also are presented.

CJ 250 **5 credits**
Professional Development

Self-development activities are provided to assist students in gaining employment after graduation. Activities include civil service examinations, both written and oral, and exercises in professional conduct. Each student will go through initial physical assessments, physical training and final physical assessment in preparation for hiring standards and academy level testing standards.

CJ 260 **5 credits**
Introduction to White Collar Crime

Examines concepts, extent and costs of white-collar and organized crime. "Upper-class" offenders are described/contrasted to the common "street" criminals. Individual/organizational forms of white-collar crime are reviewed and assessed. Special attention is paid to the use of criminal law in the control of what was once a civil arena.

CJ 261 **5 credits**
Law Enforcement Research Methods

Introduces concepts, approaches and methods for conducting and analyzing empirical research for criminal justice settings. Topics covered include: quantitative and qualitative research, surveying, sampling, data tabulation and assessing how to choose the appropriate method for specific law enforcement situations.

CJ 262 **5 credits**
Criminal Justice Interpersonal Communication Skills

Interpersonal communication skills and with practical applications for criminal justice settings. Topics include: effective listening, techniques for diffusing emotionally charged situations, recognizing criminal behavior dynamics, effective confrontation strategies and identifying problematic behaviors. Designed to increase observation and articulation skills used in emotionally charged situations common in criminal justice environments.

CJ 270 **5 credits**
Medicolegal Death Investigation

Learn to conduct scientific, systematic and thorough death scene investigations for medical examiner and coroner offices. Course is appropriate training for police officers, physicians, nurses, emergency medical personnel, attorneys, forensic scientists and others who are involved with the investigation of violent, suspicious or unexpected deaths. Includes lab experiences. Prerequisites: second-year criminal justice student and program director's signature.

CJ 271 **5 credits**
Advanced Criminal Investigations

In depth studies of criminal and crime scene investigations; advanced development of investigative skills and forensic applications for crime scenes and evidence evaluation. Emphasizes crime scene reconstruction as a means to solve and prosecute violent crimes. Prerequisites: Registered as second-year criminal justice student, CJ 201 and/or program director's signature.

CJ 196/296 **1-5 credits**
Cooperative Work Experience

Intended to provide authentic experiences in the world of work by applying knowledge and skills learned in the classroom to a working environment. Variable credit class. Prerequisites: instructor's signature.

Drama**DRMA& 101** **5 credits**
Introduction to Theatre

A study of theatre as an art form. Emphasis on Western dramatic literature analysis from Sophocles to Sheppard, theatrical history and the roles of various theatre artists/playwrights, actors, directors and designers in the production of plays.

Early Childhood Education**ECE 117** **3 credits**
Diversity

Introduction to incorporating cultural, ethnic, racial, gender and physical diversity into the early childhood setting. Includes recognizing and resisting stereotypical and discriminatory behavior and working with parents and communities to create a supportive environment for diversity.

ECE 119 **1 credit**
ECE Cornerstone

Provides an overview of the early childhood education program expectations and philosophy. Students will gain knowledge and skills in collecting work samples for the professional portfolio which they are required to develop in ECE 260.

ECE 132 **2 credits**
Field Experience II

Complete 20 hours of field experience in each of the following three approved early childhood education settings: infant/toddler program, preschool program, kindergarten, first, second or third-grade classroom (60 hours total). Prerequisites: concurrent enrollment in ECED& 190 required.

ECE 133 **2 credits**
Field Experience III

Student completes 60 hours of field experience in an approved early childhood setting with a qualified teacher. Apply classroom theory from EDUC&150 to actual practice of technical skills per Washington State Core Competencies for Early Care and Education Professionals. Concurrent enrollment in EDUC&150 required for students who are pursuing ECE certificate or ATS degree.

ECE 140 **2 credits**
CDA Capstone

Assists students in final preparation for CDA Assessment. Students develop CDA professional resource files, distribute parent questionnaires and review CDA competency goals/functional areas. Prerequisites: ECED& 105, ECED&107, ECED&120, first aid/CPR training, blood-borne pathogen education, and at least 480 hours of experience working with preschool children within the past five years.

ECE 219 **5 credits**
Language & Literacy Development II

Covers the fundamental concepts of how language is acquired and literacy emerges in children from birth through eight years. Methods of enhancing language development, listening skills, and emergent reading and writing skills in the early childhood setting and family environment will be explored. Prerequisites: ECED& 105 (formerly ECE 101), EDUC& 115, ECED& 180 (formerly ECE 206).

ECE 220 **3 credits**
Math and Science in Early Childhood

Methods, materials and vocabulary to use in individualized and developmentally appropriate math and science experiences in early childhood and family environments. Role of technology will be explored. Prerequisites: ECED& 105 (formerly ECE 101), EDUC& 115.

ECE 221 **3 credits**
Movement/Motor Development in Early Childhood

Students will learn to select, create and use activities to foster

development of muscle coordination and strength, body awareness, movement, balance, and endurance. Individual areas of physical and creative activities will be explored, as will family and community influences. Prerequisites: ECED& 105 (formerly ECE 101), EDUC& 115.

ECE 222 **3 credits**
Arts & the Creative Process

Provides students with skills to plan and implement creative experiences in art, music, drama, dance and literature. Community resources will be identified. The relationship of the creative domain to other developmental domains is a focus. Prerequisites: ECED& 105 (formerly ECE 101), EDUC& 115.

ECE 231 **2 credits**
Field Experience IV

Complete 60 hours of field experience in an approved early childhood setting with a qualified teacher. Apply classroom theory from ECE 220 to actual practice of technical skills as defined in the Washington Skill Standards for Early Childhood Professionals. Concurrent enrollment in ECE 220 required. Prerequisites: ECED&105, EDUC&115.

ECE 232 **2 credits**
Field Experience V

Completes 60 hours of field experience in an approved early childhood setting with a qualified teacher. Apply classroom theory from ECE 222 to actual practice of technical skills per Washington Skill Standards. Concurrent enrollment in ECE 222 required for students pursuing ECE certificate or ATS degree. Prerequisites: ECED& 105, EDUC& 115.

ECE 260 **1 credit**
ECE Capstone

Provides the knowledge and skills needed to develop and maintain a professional portfolio to use in job searches and other career endeavors. Prerequisites: ENGL 097, ECE 117, 119, 132, 219, 220, 222, ECED& 105, 107, 120, 132, 160, 170, 180, 190, EDUC& 115, 130, 150.

ECE 290 **4 credits**
Early Childhood Education Practicum

Student completes 90 hours of field experience in an approved early childhood setting. Under the direct supervision of a qualified early childhood professional, student takes on the role of lead teacher to demonstrate skills in curriculum planning and implementation, child guidance, environmental design, and communication with families and program staff. Students will meet once a week with course instructor to discuss practicum experiences. Prerequisites: ENGL 097, ECE 117, 119, 132, 219, 220, 222, ECED&105, 107, 120, 132, 160, 170, 180, 190, EDUC&115, 130, 150.

ECED& 105 **5 credits**
Introduction to Early Childhood Education

Explore 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. Formerly ECE 101.

ECED& 107 **5 credits**
Health, Safety and Nutrition

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. Formerly ECE 108.

ECED& 120 **2 credits**
Practicum – Nurturing Relationships

In an early learning setting, apply best practice for engaging in nurturing relationships with children. Focus on keeping children healthy and safe while promoting growth and development. Prerequisites: concurrent enrollment in ECED& 105.

ECED& 132 **3 credits**
Infants & Toddlers

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. Formerly ECE 215.

ECED& 134 **3 credits**
Family Child Care

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.

ECED& 139 **3 credits**
Administration of Early Learning Programs

Develop administrative skills required to develop, open, operate, manage and assess early childhood education and care programs. Explore techniques and resources available for Washington State licensing and National Association for the Education of Young Children (NAEYC) standard compliance. Formerly ECE 290.

ECED& 160 **5 credits**
Curriculum Development

Investigate learning theory, program planning, and tools for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in young children (birth-age 8). Prerequisites: ECED& 105 (formerly ECE 101), EDUC& 115.

ECED& 170 **3 credits**
Environments

Design, evaluate, and improve indoor and outdoor environments which ensure quality learning, nurturing experiences, and optimize the development of young children.

ECED& 180 **3 credits**
Language and Literacy Development

Develop teaching strategies for language acquisition and literacy skill development at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing and reading. Formerly ECE 206.

ECED& 190 **3 credits**
Observation & Assessment

Collect and record observation of and assessment data in order to plan for and support the child, the family, the group and the community. Practice reflection techniques, summarizing conclusions and communicating findings. Prerequisites: concurrent enrollment in ECED& 132.

Economics

ECON 101 **5 credits** **Introduction to Economics**

Study of the organization and operation of the U.S. economic system including the roles of consumers, businesses and government. Investigation of the problems and policies associated with economic growth, environmental pollution, inflation, unemployment, poverty, energy and international trade.

ECON& 201 **5 credits** **Micro Economics**

Study of consumer behavior and the revenue concepts, firm behavior and the cost concepts, price and employment theory, industrial organization, labor, agricultural and international economics.

ECON& 202 **5 credits** **Macro Economics**

Study of the structure and operation of the U.S. economic system, including economic institutions, resources, price mechanisms, public finance, economic fluctuations, national income accounting, macroeconomic theory, fiscal policy, the banking system, monetary policy and economic growth.

Education

EDUC& 115 **5 credits** **Child Development**

Build a functional understanding of the foundation of child development, prenatal to early adolescence. Observe and document physical, social, emotional and cognitive development of children, reflective of cross cultural and global perspectives.

EDUC& 130 **3 credits** **Guiding Behavior**

Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences.

EDUC 132 **2 credits** **Tutor Training I**

Presents basic orientation to tutoring program policies and procedures, tutoring methods and interpersonal relationship skills for tutors. Prerequisites: college-level writing skills and acceptance in an established tutoring program or instructor's signature. (Formerly EDUC 130.)

EDUC 133 **2 credits** **Tutor Training II**

Presents tutor center management, advanced tutoring methods and interpersonal relationship skills for tutoring. Prerequisites: college-level writing skills and one year's experience in a tutoring program or instructor signature. (Formerly EDUC 131.)

EDUC& 136 **3 credits** **School Age Care Management**

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. Formerly ECE 216.

EDUC& 150 **3 credits** **Child, Family and Community**

Integrate the family and community contexts in which a child develops. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their child, and tools for effective communication. Formerly ECE 116.

EDUC 200 **5 credits** **Intro. to Education**

Introduction to education as a professional career. Explore both the benefits and challenges of teaching. Study the history, philosophies, cultural diversity and ethics of education in America. Learn and practice the components of effective lesson planning including current trends in education such as the Common Core State Standards (CCSS). Prerequisites: ENGL&101, or equivalent, or instructor's signature.

EDUC& 204 **5 credits** **Exceptional Child (Intro to Special Education)**

Introduction to the field of special education. Includes various categories of disabilities and special needs, legal and historical perspectives for special education services, roles and responsibilities of special education team members, and instructional strategies for teaching in a special education environment. (Covers the 14 core competencies for special education paraeducators.) Prerequisites: ECED& 105, EDUC& 115.

EDUC 210 **2 credits** **Education Practicum**

This course acquaints teacher candidates with principal issues in educational practice and begins developing reflective teaching. Students discuss and reflect on observations of classroom management, instructional methodology, instructional assessment, diversity, exceptionalities, educational legal issues and educational technology. In this field experience, students work directly with teachers, administrators, and para-educators. Prerequisites: EDUC 200; finger printing and background check required.

Electricity

ELEC 115 **5 credits** **Applied Electricity**

An introduction to applied electricity in the industrial trades, this course discusses basic alternating (AC) and direct (DC) current, transformers, motors, relays, reactance, electrical power generation and power distribution systems. Prerequisites: MATH 096 or MATH 093 or instructor's signature.

ELEC 125 **5 credits** **Wiring Diagrams and Schematics**

In-depth study of ladder and pictorial wiring diagrams and schematics as applied to various industrial applications specifically in electronics, manufacturing, industrial food processing, refrigeration and industrial equipment manufacturers' circuits.

ELEC 135 **3 credits** **Control Fundamentals**

Basic introductory course for understanding control theory and principles of automatic controls used for residential, commercial and industrial equipment. Includes application, service and installation procedures for electrical, electronic and mechanical

control systems. Prerequisites: ELEC 125 or instructor's signature.

ELEC 225 **5 credits**
Industrial Electricity and Controls

Review of industrial electricity to include discussion on generation, power distribution, wiring, electrical code, transformers, solid-state motor starters, AC and DC motors, power-factor correction, speed controllers and schematics. Prerequisite: ELEC 115.

Engineering

ENGR 102 **4 credits**
Engineering Graphics and Design

This introductory course in graphical drawing and blueprint interpretation includes orthographic projections, pictorials, lettering, scales, basic dimensioning, blueprint reading plus interpretation of documents related to blueprints such as construction contract documents, specifications and addendum, emphasizing commercial and industrial building construction. Laboratory time includes practice with basic drafting techniques.

ENGR 105 **5 credits**
Computer Aided Design

This course provides familiarization with computer-aided drafting techniques using an interactive microcomputer CAD system. Students create, edit and store basic drawings using a tablet digitizer and/or screen menu consisting of geometric forms and alphanumeric characters. Laboratory included. Prerequisites: strongly recommend basic computer knowledge.

ENGR 106 **4 credits**
Advanced Computer Aided Design

This course provides a continuation of the topics introduced in ENGR 105 with an emphasis on basic customization. Topics include configuration profiles, script files, user-created menus, slide files, attribute creation and extraction, 3-D construction, and solid modeling. Laboratory included. Prerequisites: ENGR 105 or equivalent.

ENGR& 214 **5 credits**
Engineering Statics

Principles of engineering statics including basic concepts, resultants, force-couple relationships, equilibrium diagrams, equilibrium analysis, three-dimensional structures, two-dimensional frames, trusses, beams and friction. Prerequisites: MATH& 152, PHYS& 222 or equivalent, or instructor's signature.

English/Academic Purpose

EAP 065 **5 credits**
English Pronunciation

Learn the correct pronunciation of English words through phonetic exercises with emphasis on vowel and consonant syllable use. Tongue and mouth placement will be stressed with visuals. There will be homework practice.

EAP 066 **5 credits**
Pronunciation II

Perfecting English pronunciation intermediate level through advanced level by practicing stressed syllables in words and stressed words in sentences, intonation, contractions, rhythm

and timing, compound words, word pairs, past tense verbs, possessives, consonant clusters, and much more. Prerequisite: EAP 065.

EAP 075 **5 credits**
Conversational English

Provides international students with the concepts to be able to communicate with English speakers, function in college life and the community, and understand spoken English language.

EAP 076 **5 credits**
Oral Communication in Academic Setting

Intended for non-native speakers to achieve oral skills (speaking and listening) in the academic environment. Prerequisite: EAP 075, completion of ESL level 5, 6, or equivalent, and/or instructor's signature.

EAP 077 **5 credits**
Oral Communication in Academic Settings II

Intended for international students and non-native speakers to refine oral skills (speaking and listening) in the academic environment. Prerequisites: EAP 076, completion of ESL level 5, 6, or equivalent, and/or instructor's signature.

EAP 085 **5 credits**
Writing for Transition

Designed for non-native speakers to understand and use conventions of the English language, including grammar, spelling and sentence to paragraph structure.

EAP 086 **5 credits**
Writing for Transition II

Designed for non-native speakers to understand and use conventions of the English language, including grammar, spelling and paragraph to short composition structure. Prerequisites: EAP 085 or instructor's signature.

EAP 090 **5 credits**
EAP Beginning Reading

Designed for international students to improve reading skills. Emphasizes vocabulary development, reading comprehension and retention, and critical thinking skills. Students will begin to appreciate cultural diversity through assigned readings and classroom interactions. Prerequisites: participation in international student program.

EAP 091 **5 credits**
EAP Reading

Designed for international students to improve reading skills. Emphasizes vocabulary development, reading comprehension and retention, and critical thinking skills. Students will begin to appreciate cultural diversity through assigned readings and classroom interactions. Prerequisites: participation in international student program.

EAP 092 **5 credits**
Reading for the TOEFL

Intended for international students and non-native speakers to refine reading skills in preparation for the TOEFL. Prerequisites: EAP 076, completion of ESL level 5, 6, or equivalent, and/or instructor's signature.

English

ENGL 090 Basic English Structure 5 credits

Designed to improve writing skills. Course topics emphasize grammar and sentence structure. Students must earn a minimum grade of "C" (2.0) or better to progress to English 097. Prerequisites: appropriate assessment scores or completion of ABE Writing Level 4.

ENGL 092 Reading Concepts 5 credits

Designed to improve reading skills. Emphasizes vocabulary development, reading comprehension and retention, and critical thinking skills. Students will begin to appreciate cultural diversity through assigned readings and classroom interactions. Prerequisites: ABE level IV, appropriate assessment score, or instructor's signature.

ENGL 097 Composition: Paragraph 5 credits

Development of written composition skills using correct and appropriate mechanical and organizational skills to produce effective paragraphs appropriate for diverse adult audiences. Prerequisites: ASSET/COMPASS placement into ENGL 097 or a minimum grade of "C" (2.0) in ENGL 090 and/or ENGL 092 as determined by placement testing. Keyboarding skills recommended.

ENGL& 101 Composition: General 5 credits

Develops college-level reading, writing and critical thinking abilities. Develops writing skills by focusing on strategies and techniques to develop, organize and articulate ideas effectively, including the use of documented source material. Emphasizes writing process. Students must earn a minimum grade of "C" (2.0) or better in this course to progress to a 200-level composition course. Prerequisites: Appropriate assessment scores in language usage and reading or a grade of "C" or higher in ENGL 097 or a grade of "B-" or higher in ABE 019 or a grade of "B" or higher in the Bridge-to-College English Language Arts course or a grade of "3" or higher on the Smarter Balanced exam. Keyboard/word-processing skills recommended.

ENGL& 111 Introduction to Literature 5 credits

Study of the principal literary forms of fiction, poetry and drama/cinema. Readings, discussions, and lectures focusing on established authors to develop awareness and understanding of literature.

ENGL& 112 Introduction to Fiction (Contemporary Fiction) 5 credits

Study of traditional and contemporary themes and styles in fiction. Through class discussion and writing assignments, students analyze, interpret and evaluate works.

ENGL& 113 Introduction to Poetry 5 credits

The basic elements of poetry. Through class discussion and writing assignments, students analyze, interpret and evaluate poems which are broadly representative of a variety of historical periods and poetic techniques.

ENGL 135 Creative Writing 5 credits

Writing and revising stories and poems. Reading and responding to published models. Reading and evaluating other students' works. May be repeated for a total of fifteen credits.

ENGL 201 Composition: Advanced Essay 5 credits

Refines writing process skills begun in ENGL& 101. Writing expository/argumentative essays for a variety of applications. Learning research methods and appropriate documentation. Students must earn a grade of "C" (2.0) or better to apply this course to the Writing Skills requirement for AAS or AST degree. Prerequisites: ENGL& 101 with a grade of "C" (2.0) or better.

ENGL 202 Composition: Critical Analysis 5 credits

Refines process of planning, revising and editing essays begun in ENGL& 101. Writing expository/ argumentative responses to professional publications. Learning research methods and appropriate documentation. Students must earn a grade of "C" (2.0) or better to apply this course to the Writing Skills requirements for an AAS or AST degree. Prerequisites: ENGL& 101 with a grade of "C" (2.0) or better.

ENGL 203 Composition: Research 5 credits

Refines process of planning, revising and editing essays from ENGL& 101. Writing research papers. Emphasizes topic selection, use of print and electronic sources, note taking, credibility, fact and opinion, logic, avoidance of plagiarism, and documentation. Students must earn a grade of "C" (2.0) or better to apply this course to the Writing Skills requirement for AAS or AST degree. Prerequisites: ENGL& 101 with a grade of "C" (2.0) or better.

ENGL 215 Fantasy Fiction 5 credits

Study of fantasy, magical realism and speculative fiction as literary forms with emphasis on the analysis of theme, symbolism, structure and character.

ENGL& 226 British Literature 5 credits

Study of selected British authors and works of literature from Old English, Middle Ages, Renaissance, Neo-Classical, Romantic, Victorian and Modern periods.

ENGL& 235 Technical Writing 5 credits

Refines the writing process from ENGL& 101 through technical and professional writing. Emphasizes print and electronic sources, logic, avoiding plagiarism, documentation, addressing multiple audiences, oral presentation. Students must earn a grade of "C" (2.0) or better to apply this course to the Writing Skills requirement for AAS, AST or DTA. Prerequisites: ENGL& 101 with a grade of "C" (2.0) or better.

ENGL 240 World Literature 5 credits

Study of major works of literature, both ancient and modern, from various languages and diverse cultures--western and non-western.

ENGL 247 **5 credits**
Multicultural Literature

Study of the cultures that make up the multicultural America as represented in literature. By critically examining the ideals, issues, and questions that are common or unique to each culture, will strive to determine the difference between individual and collective identity and how these differences and commonalities create America.

ENGL 250 **5 credits**
American Literature

Study of American Literature from the sixteenth century through the current century. Emphasizes the historical, political and cultural basis for the American myth, the American hero and the diversity of American literary genres, stressing the relation between societies/cultures and the works of American writers.

ENGL 275 **5 credits**
Fiction Writing

A workshop that introduces the techniques for writing fiction. Emphasizes reading published models and the development and application of criteria for evaluating and revising stories. May be repeated for a total of fifteen credits.

ENGL 276 **5 credits**
Poetry Writing

A workshop that introduces the techniques for writing poetry. Emphasizes reading published models and the development and application of criteria for evaluating and revising poems. May be repeated for a total of fifteen credits.

Environmental Systems & Refrig. Technology**ESRT 102** **1 credit**
OSHA 10 Safety Principles

An online course which focuses on the OSHA standards and guidelines for enhancing safety and health in the workplace. Topics include introduction to the OSHA Act, enforcement and recordkeeping, walking-working surfaces, means of egress, emergency action plans, fire protection plans, electrical safety, hazardous materials, personal protective equipment and hazard communication.

ESRT 110 **5 credits**
Refrigeration Principles

Introduction to basic heat transfer, refrigeration applications, major components, equipment and systems. Includes job opportunities, tools and test instruments. Lab encompasses experiments in boiling, freezing, temperature, refrigerants, gauges and repair standards. Lab projects include repairing residential and light commercial equipment while emphasizing the proper use of repair instruments and procedures. Prerequisites: MATH 096 or MATH 093 or instructor's signature.

ESRT 114 **1 credit**
Refrigerant Recovery/Recycle

Introduction to proper handling of CFC/HCFC refrigerants and non-CFC replacements, including recovery, recycle and reclaiming processes. Global issues, regulations and legislation discussion will prepare students for national certification. Prerequisites: ESRT 110 or concurrent enrollment.

ESRT 120 **5 credits**
Heating Systems

Introduction to heating systems, emphasizing electric, gas, oil, solar systems, hot water and steam boiler systems. Includes lab experience troubleshooting, practicing repair procedures and combustion analysis. Proper use of tools, instruments and tests to perform efficiency measurements included. Prerequisites: ESRT 110 or instructor's signature.

ESRT 130 **5 credits**
Air Conditioning and Heat Pumps

Principles of the air conditioning and heat pump processes, including mechanical components, ventilation, filtration, psychrometrics and relative humidity. Emphasis will be toward residential applications and tools for service and troubleshooting. Laboratory experience includes repairing and servicing residential and light commercial air conditioning and heat pump equipment. Prerequisites: ESRT 110 or instructor's signature.

ESRT 136 **2 credits**
Indoor Air Quality

Learn the techniques used to recognize the signs of IAQ problems, investigate for potential pollutants and their sources, determine the levels of common pollutants in indoor air, and propose solutions to the problem. Provides information, hands-on experience and practical guidance in conducting inspections and evaluating the performance of mechanical ventilation systems.

ESRT 200 **5 credits**
Commercial HVACR Equipment

Study of systems and components used in commercial HVACR applications. Emphasis on proper installation and diagnostic procedures. Ice machines, walk-ins, display cases, compressors, condensers, evaporators, valves, piping, service techniques and test equipment to be highlighted. Packaged rooftop HVAC units will also be covered. Prerequisites: ESRT 110 or instructor's signature.

ESRT 205 **2 credits**
Blueprint Reading

In-depth study of construction blueprints for residential, commercial and industrial facilities emphasizing interpretation as it applies to energy and HVAC industries. Additional information will include interpretation of contract documents, specifications and addendums emphasizing building components.

ESRT 210 **3 credits**
Boiler Systems

Advanced study of commercial and industrial boiler applications commonly found in larger facilities. Includes low-pressure hot water and steam boilers, high pressure steam boilers, boiler fittings, feed water accessories, combustion accessories, draft control and water treatment. Operations, maintenance, energy efficiency and boiler room safety are emphasized. Prerequisites: ESRT 110 or instructor's signature.

ESRT 215 **3 credits**
Commercial DDC HVAC Controls

Course on DDC - Direct Digital Controls for HVAC (heating, ventilation and air conditioning) controls used in commercial building systems. Includes information on electrical, pneumatic, DDC electronic controls and associated equipment. Course work emphasizes generic approach while studying specific manufacturers, specifications and data sheets. Prerequisites: ELTRO 132 or instructor's signature.

ESRT 220 **5 credits**
Industrial Refrigeration Systems

Principles of industrial refrigeration systems and equipment as applied to industrial warehouses and buildings. Includes information for direct expansion, flooded, overfeed systems. Discussion of ammonia and halocarbon (freon) compressor types, condensers, evaporators, metering devices, pumps, defrost methods, vessels and related devices. Prerequisites: ESRT 110 or instructor's signature.

ESRT 222 **3 credits**
Industrial Refrigeration Lab

Industrial refrigeration laboratory experience becoming familiar with machinery, electricity and controls associated with industrial refrigeration equipment including compressors, valves, motors, controls, pumps, boilers and associated components. Prerequisites: concurrent enrollment in ESRT 220 or instructor's signature.

ESRT 223 **3 credits**
Design and Load Applications

Application engineering and design course for calculating air conditioning and heating equipment. Includes computerized design of heat loads and heat gains, duct sizing and equipment selection. Design energy efficient HVAC equipment for heating and air conditioning systems used in residential and light commercial buildings. Prerequisites: ESRT 110 or instructor's signature.

ESRT 230 **2 credits**
Industrial Refrigeration Maintenance and Safety

Continuation of ESRT 220, with emphasis on maintenance, operation and safety. Information will include scheduling, preventive maintenance, water treatment, troubleshooting, repair procedures, energy conservation, process safety management (PSM) programs and risk management programs (RMP). Prerequisites: ESRT 220 or instructor's signature.

ESRT 238 **3 credits**
HVAC Commissioning, LEED and TAB Testing

Reviews HVAC TAB (Test, Adjust and Balancing) process, including the process of commissioning of various types of building HVAC energy management and control systems, and how the LEED (Leadership in Energy and Environmental Design) certification process is implemented and steps to arrive at certification. Documentation requirements are covered to become a certified TAB and LEED individual for students to take the national exam. Prerequisites: ESRT 110, ESRT 223.

ESRT 295 **2 credits**
Capstone HVACR Project

Provides second-year students the opportunity to advance their skills through an applied project in their field of interest or specialization within the HVACR industries.

ESRT 196/296 **1-5 credits**
Work Experience

Designed to provide students with on-the-job practical field experience. One credit for each five hours of work experience per week. Prerequisite: instructor's signature.

Fire Science**FS 105** **2 credits**
Orientation to Fire Science

Introduction to the fire service, industry expectations and what it takes to succeed.

FS 106 **10 credits**
Basic Fire Science

Through a combination of lecture and hands-on training, students will learn how to perform basic functions of structural firefighting in a safe and effective manner. This course in combination with Intermediate Fire Science (FS 121) will include an embedded certification of IFSAC Firefighter One. Prerequisites: fire department sponsorship.

FS 110 **4 credits**
Pumpers and Water System Hydraulics

Studies of fluid mechanics dealing with the mechanical properties of water at rest and in motion, its application to suppression operations, and fire streams. Includes municipal and rural water supply operations, basic fire pump components, systems and operational skills. Prerequisites: fire department sponsorship.

FS 121 **10 credits**
Intermediate FS

Through a combination of lecture and hands-on training, the student will learn how to perform intermediate functions of structural firefighting in a safe and effective manner. This course in combination with Basic Fire Science (FS 106) will include an embedded certification of IFSAC Firefighter One. Prerequisites: fire department sponsorship and FS 106.

FS 130 **4 credits**
Wildland Firefighting Basics

Provides the new wildland firefighter with basic FFT2 Red Card-qualifying skills to effectively and safely suppress wildfires while under close supervision. Prerequisites: fire department sponsorship.

FS 152 **3 credits**
Building Construction

Overview of engineering principles by building construction, characteristics of building classifications, life and fire safety devices, fire assemblies, fire loading, fire resistance, and flame spread ratings. Covers the hazards of various methods, techniques, components and materials of building construction. Prerequisites: fire department sponsorship.

FS 160 **3 credits**
Tactics

Includes the planning, implementation and evaluation of basic fire tactics at the responding officer level. Principal elements include size-up, fire simulation, fire behavior, tactics, strategy, resource requirements and proper allocation of resources. Prerequisites: fire department sponsorship, FS106, FS121.

FS 180 **3 credits**
Hazardous Materials Operations

Designed to prepare the student in the knowledge of hazardous materials and how it relates to the fire service. This course will include embedded certifications of IFSAC Hazardous Materials Awareness and Operations. Prerequisites: fire department sponsorship.

FS 200 **10 credits**
Advanced Fire Science

Through a combination of lecture and hands-on training, students will learn how to perform advanced functions of structural firefighting in a safe and effective manner. This course will include an embedded certification of IFSAC Firefighter Two. Prerequisites: fire department sponsorship, FS106, FS121.

FS 233 **2 credits**
Professional Development

Designed to prepare the student for oral interviews and the job application process. Prerequisites: fire department sponsorship.

Geography**GEOG& 100** **5 credits**
Introduction to Geography

Introduction to the study of human geography and the major themes of the discipline. Topics include human-environment interaction, population and migration, cultural diffusion, patterns of health and nutrition, industrialization, economic development, and political geography. These will be approached in the context of regional difference and globalization.

GEOG& 102 **5 credits**
World Regional Geography

Examines the diversity of the world's human and physical landscapes using a regional approach. Geographic concepts and the dynamics of development are discussed within the context of 10 major geographic realms. Regional disparities and interdependencies provide an important focus for understanding the global complexity of social systems.

GEOG& 207 **5 credits**
Economic Geography

Survey of the field of economic geography, including globalization, economic development, location analysis, rural and urban land use. Economic debates and alternative theories examined in historical and current context. Global, regional and local scales employed to explore how production, distribution and consumption of goods and services are geographically organized.

Geology**GEOL& 101** **5 credits**
Introduction to Physical Geology

Study the geologic processes that shape the earth. Determine how the earth works and its history by applying principles of geology, chemistry and physics. Topics include plate tectonics, earthquakes, volcanoes, rocks, minerals, glaciers, rivers, geologic maps and the structure of the earth. May include field trips. Includes laboratory. Prerequisites: MATH 093 or higher.

GEOL& 208 **5 credits**
Geology of the Pacific Northwest

Learn Pacific Northwest geology and geologic history by studying rocks, sediments, landforms, fossils, geologic maps and geologic structures. Examine how plate tectonics, volcanoes, faulting, folding, rock formations, geologic time, mountain building, terrain accretion, earthquakes, glaciers, rivers and floods have created our land and resources. May require field trip(s). Includes laboratory.

GEOL 218 **5 credits**
Environmental Geology

Explore how the earth environment controls human existence and how earth itself changes in response to human activities. Study the determining factors and predict the effects of earthquakes, volcanic eruptions, landslides, floods, changing climates and human use of earth's resources of energy, minerals, water and soil. Prerequisites: MATH 093 or higher.

German**GERM& 121** **5 credits**
German I

Elements of German phonetics and orthography. Introduction to German grammar and conversational usage. Background in grammatical terminology is recommended.

GERM& 122 **5 credits**
German II

Continuation of German I. Increased use of German as the language of instruction. Background in grammatical terminology is recommended. Courses should be taken in sequence. Prerequisite: GERM& 121.

GERM& 123 **5 credits**
German III

Continuation of German II. Increased use of German as the language of instruction. Background in grammatical terminology is recommended. Courses should be taken in sequence. Prerequisite: GERM& 122.

Health**HLTH 051** **1 credit**
First Aid & CPR

The standard first aid and CPR skills a person needs to know as the first link in the emergency medical services system. The focus is to prepare the participants to respond correctly in emergencies.

HLTH 123 **3 credits**
Medical Terminology

Prepares students for beginning studies in allied health careers. Includes study of terms in anatomy, physiology and pathology through word analysis with emphasis on word parts: prefix, root and suffix. Also covered are medical abbreviations and pathologic terms used for common medical diagnoses, diagnostic tests and operative procedures. Prerequisites: basic English grammar and spelling skills required.

High School Completion**HSC 012** **1-5 credits**
HS21 + Digital Literacy I

Designed for the beginning technology user: basic use and functions of mobile and traditional digital technology tools. Addresses beginning keyboarding, I/O device use, menu and GUI navigation, and basic internet and email usage with contextual activities covering HS21+ topics. This course may confer HS21+ English, occupational education or elective credit. Prerequisites: Students must have current CASAS assessment to receive

permission from WVC Transitional Studies to enroll.

HSC 013 1-5 credits
HS21 + Digital Literacy II

Students with basic familiarity of traditional and mobile digital technology will explore office productivity applications, internet content, online learning management systems, and advanced information manipulation and organization with contextual activities covering HS21+ topics. This course may confer HS21+ Occupational Education or elective credit. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 014 1-5 credits
HS21 + Digital Literacy III

Students will finalize college and career readiness in digital literacy as they explore advanced functions of learning management systems, email, internet content, digital research and reporting, and office productivity applications with contextual activities covering HS21+ topics. This course may confer HS21+ occupational education or elective credit. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 017 1-10 credits
Basic English Language Acquisition

Designed for basic-level learners of English to improve reading, writing, listening and speaking skills; stresses sentence structure, verb tenses, subject-verb agreement and vocabulary in contextual activities involving HS21+ topics. This course confers HS21+ English credit and may confer other HS21+ credit. Replaces ESL 021, ABE 030 and ABE 050. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 018 5-10 credits
Intermediate English Language Acquisition

Through contextual activities involving HS21+ topic areas, learners continue development of reading, writing, speaking and listening skills. Students navigate complex sentences and single paragraph passages for comprehension and effective written communication. This course confers HS21+ English credit and may confer other HS21+ credit. Replaces ESL 022, ABE 031 and ABE 051. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 019 5-10 credits
Advanced English Language Acquisition

Through contextual activities involving HS21+ topics, learners demonstrate full competency in reading, writing, speaking and listening for college and career success. Students apply advanced English language skills in highly complex, multi-paragraph communicative tasks. This course confers HS21+ English credit and may confer other HS21+ credit. Replaces ABE 032, ABE 052. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 020 1-5 credits
HS21 Occupations & Workplace Skills

Integrated reading, writing, math and critical thinking skills to develop workforce-ready skills and knowledge, including workplace competencies, career options and goals, and the importance of educational achievement in career pathways. This HS21+ course is self-paced and may confer credit for

English, math, occupational education or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 040 1-5 credits
HS21 Basic Math

Introductory mathematical concepts described in CCRSs Levels A and B, including place value, simple operations and problem solving, basics of geometry and measurement, and introduction to fractions, decimals and percentages. Includes contextual activities covering HS21+ topics. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 041 1-5 credits
HS21 Intermediate Math

Learners continue development in mathematical reasoning to outcomes described in CCRSs Levels C and D, including multi-digit operations; common factors and multiples; increasingly complex fractional, decimal, and percentage operations; ratios and proportions; introductory algebraic equations; and development of geometry, statistics and measurement concepts. Includes contextual activities covering HS21+ topics. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 042 1-5 credits
HS21 Advanced Math

Advanced competencies as described in CCRSs Level E in mathematics, algebra and geometry, including rational and irrational numbers, ratio and rate reasoning, real-world application of numerical and algebraic equations, functions, and advanced geometry, statistics and measurement concepts. Includes contextual activities covering HS21+ topics. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 061 1-5 credits
HS21 College & Life Skills

Intensive college orientation activities through contextual reading and writing assignments. Students develop organizational and communication skills; explore educational and career pathways; become proficient in interactions with college classes, instructors and other students; and learn to navigate college systems. This course may confer HS21+ credit for English, occupational education or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 062 1-5 credits
HS21 + US History

Integrated reading, writing and critical thinking skills addressing key concepts and topics in US history. Includes social, political and multicultural perspectives allowing students to understand and convey informed opinions about America's past, and how it affects our present. Self-paced and may confer credit for English, US history or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 063 1-5 credits
HS21 + Contemporary World History

Integrated reading, writing and critical thinking skills addressing key concepts and topics in post-1800 world history. Includes social, political and multicultural perspectives allowing students

to understand cause and effect, and convey informed opinions. This HS21+ course is self-paced and may confer credit for English, contemporary world history or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 064 **1-5 credits**
HS21 + Civics & Social Studies Topics

Integrated reading, writing and critical thinking skills combining a broad view of American government and politics with comparisons and contrasts with other forms of government across the world. This HS21+ course is self-paced and may confer credit for English, US history, contemporary world history, civics, social studies or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 065 **1-5 credits**
HS21 + Washington & Pacific NW History

Integrated reading, writing, and critical thinking skills addressing regional history topics. Includes social, political and multicultural perspectives allowing students to understand cause and effect, and convey informed opinions. This HS21+ course is self-paced and may confer credit for English, WA/PNW history, or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 066 **1-5 credits**
HS21 + Fine Arts

Integrated reading, writing and critical thinking skills addressing fine arts disciplines from multicultural perspectives. Students will survey various performance and visual arts, producing at least two artifacts. This HS21+ course is self-paced and may confer credit for English, Fine Arts, or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 067 **1-5 credits**
HS21 Life Science with Lab Option

Integrated reading and writing activities exploring foundational life science topics. Lab option will include laboratory experiments and scientific investigations with emphasis on safety, scientific method, recordkeeping and data reporting. This HS21+ course is self-paced and may confer credit for English, science, lab science or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 068 **1-5 credits**
HS21 + Physical Science with Lab Option

Integrated math activities exploring foundational physical science topics. Lab option will include laboratory experiments and scientific investigations with emphasis on safety, scientific method, recordkeeping and data reporting. This HS21+ course is self-paced and may confer credit for science, lab science or electives. Prerequisites: Students must have current CASAS assessment to receive permission from WVC Transitional Studies to enroll.

HSC 069 **1-5 credits**
HS21 Health, Fitness & Nutrition

Integrated reading, writing and critical thinking skills addressing physical and mental health as it relates to college and career readiness and life enrichment. Students will learn to make informed choices about personal wellness. This HS21+ course is self-paced and may confer credit for English, fitness, health or electives. Prerequisites: Students must have current CASAS

assessment to receive permission from WVC Transitional Studies to enroll.

History

HIST& 116 **5 credits**
Western Civilization I

An introduction to the foundations of Western Civilization from the Neolithic Revolution until the collapse of the Western Roman Empire (476 A.D.). Emphasis will be given to the development of Western society, political ideas, social constructs, cultural attributes and religions traditions.

HIST& 117 **5 credits**
Western Civilization II

A general survey of Western Civilization from the collapse of the Western Roman Empire until the Enlightenment. Emphasis of the class will be on the political, social and cultural aspects that have contributed to the emergence of modern Europe and the Middle East.

HIST& 118 **5 credits**
Western Civilization III

A general survey of the history of Europe and the Middle East from the French Revolution (1789 AD) until the present. Emphasis will be given to those events, movements, ideas, developments and individuals who have had the most impact on Europe and the Middle East today.

HIST& 146 **5 credits**
US History I

A general history of the United States from the earliest indigenous societies and cultures to the end of the American Civil War. The primary focus of this course is to chart the development American society, culture and politics. Additionally, the course attempts to stress the diversity of cultures and peoples found in the United States and the impact of this diversity upon the development of American history.

HIST& 147 **5 credits**
US History II

A survey of American history from the Reconstruction Era until the present. The primary focus of this course is to describe the social, cultural, political and economic emergence of contemporary America. The course will emphasize the tremendous economic, social, cultural, demographic and political transformations that the United States experienced during this time period.

HIST 160 **5 credits**
History of Mexico

An examination of Mexican history from its indigenous roots through conquest and colonization to independence, revolutions and some contemporary issues.

HIST 174 **5 credits**
Western World History-Latin America

A broad survey of Latin American history from the birth of New World civilizations until the 20th century. The purpose of this course is to describe the diverse societies and cultures that have shaped the Latin American world, as well as detail the unique historical experiences of this region of the world.

HIST& 214 **5 credits**
Pacific NW History

Survey of the historical, economic and political developments of the Pacific Northwest region. Course meets Washington state requirements for certification of teachers.

HIST& 219 **5 credits**
Native American History

Survey of the interaction between the Native American populations of North America and the changing economic, social and political environments. (Formerly HIST 210.)

HIST 230 **5 credits**
History/First Peoples of the Plateau Region

Survey of the political, economic, social and spiritual changes affecting the 12 diverse nations of the Confederated Tribes on the Colville Reservation.

HIST 271 **5 credits**
Eastern World History-Southeast Asia

An introduction to the history of Southeast Asia from the earliest civilizations until the 20th century. Emphasis is placed on understanding the development of Southeast Asian cultures and societies, as well as charting the emergence of the modern countries that are found in the region.

HIST 274 **5 credits**
Eastern World History-East Asia

A general survey of the history of East Asia from prehistoric times until the 20th century. This course seeks to help students understand the development of modern China, Korea and Japan from their ancient origins and traditions. The class will stress the emergence of these three distinct cultures and societies, as well as emphasizing the diversity found within each country.

HIST 275 **5 credits**
Eastern World History-South Asia

An overview of the history of South Asia from the earliest civilizations until the 20th century. A particular emphasis will be given to describing the development of unique societies and cultures in South Asia. The course will focus primarily upon the peoples and cultures of modern India and Pakistan, but attention will also be given to Nepal, Bhutan and Afghanistan.

Humanities**HUM& 101** **5 credits**
Introduction to Humanities

An introduction to the critical thinking, arts and philosophical ideas that enrich human experience.

HUMN 121 **5 credits**
Humanities & Brewing: Cultural-Historic Perspective

Brewing history, culture and application from ancient origins of brewing to the modern development of the brewing industry and the recent proliferation of whole-grain micro-brewing. Relating the social and scientific aspects of brewing to practical applications of whole-grain brewing. Prerequisites: must be 21 years old.

HUMN 141 **5 credits**
Film and Culture

Explores the elements of film structure and content for analysis and understanding of the human experience. Through critical viewing,

thinking and writing, students will gain a basis for understanding how cultural themes and values are expressed in film.

HUMN 200 **5 credits**
Ancient Greece

Probes the Ancient Greek history, government, science, philosophy, art, architecture and literature - both epic poetry and tragedy. Prerequisites: college-level reading and writing required.

HUMN 201 **5 credits**
Humanities in Western Civilization I

A survey of the humanities from ancient Greece through the Italian Renaissance.

HUMN 202 **5 credits**
Humanities in Western Civilization II

A survey of the humanities from the Renaissance through the 20th century.

HUMN 206 **5 credits**
Symbolism and Mythology

A study of the meaning, value and scope of symbolism and myth.

Industrial Electronics**ELTRO 101** **5 credits**
Basic DC-1

Fundamental theory, multi-meter usage, Ohm's Law, series and parallel circuits, voltage and current laws, series/parallel combination circuits, DC motors, generators, semi-conductors, and instrumentation. A lab section provides hands-on exercises to reinforce principles and applications to test and troubleshoot circuits. Prerequisites: MATH 093 or MATH 096 or instructor's permission.

ELTRO 121 **5 credits**
Digital Electronics

A comprehensive focus on the concepts, terminology, components and circuits that combine to form the basic digital electronic system. Includes digital number systems, gates, inverters, Boolean algebra, flip-flops, registers, timers and counters. Hands-on lab exercises include building logic gate circuits and working with 7400 series digital components. Prerequisites: ELTRO 101 or instructor's permission.

ELTRO 132 **5 credits**
Intro to Computerized Controls and PLCs

Introduction to programmable logic controllers (PLCs). Includes practical lab work on industrial PLC controls. Basic ladder logic programming skills and installation methods will be introduced. Experiment with a PLC controller/simulator and mechanically controlled systems with physical inputs and outputs to reinforce concepts. Prerequisites: ELTRO 121 or instructor's permission.

ELTRO 202 **2 credits**
Intro to National Electric Code (NEC)

Covers the current edition of the National Electric Code (NEC). Through classroom lecture and discussion, develops comprehension of the NEC sections and relevant industrial electronics and electricity applications.

ELTRO 210 **5 credits**
Programming Software for PLCs

Course focuses on development, design and implementation of advanced programming ladder logic software and subroutines

to perform industrial control processes and applications. Data organization, file management, relay instructions, comparisons, sequencers and PID control will be introduced and applied through hands-on exercises. Prerequisites: ELTRO 132.

ELTRO 220 **3 credits**
Control Devices and Motor Drives

The theory of operation, calibration and troubleshooting of common control valves, actuators and motor drives, including electronic variable frequency drives (VFDs) and variable speed drives (VSDs). Prerequisite: ELTRO 210.

ELTRO 221 **5 credits**
Graphic Interface Programs for PLCs

Covers elements of drag-and-drop, relaxed editor, programming and using graphics for touch-screen technology, and how to program symbolically for reusable ladder development. Includes use of software to create human machine interface (HMI/MMI) technologies, object-oriented animated graphics, and enhanced trending, alarming, derived tag creation and event detection. Prerequisite: ELTRO 210

ELTRO 223 **3 credits**
Programming Software for Tag-Based PLCs

Focuses on the development, design and implementation of advanced programming ladder logic using tag-based data organization. Class focuses on the useful "tag-naming" of PLC outputs, inputs and their use in PLC logic. Tag-naming enables students to construct PLC programs that are readable and understandable by tradespersons across industry. Prerequisites: ELTRO 132.

ELTRO 230 **5 credits**
Programmable Logic Controller Networks

Introduces the many networks for online communications, including Serial, ControlNet, DeviceNet, Profibus and Ethernet networks. Also use network technology to multicast input devices, share data between controllers and control remote I/O. Prerequisite: ELTRO 220.

ELTRO 231 **5 credits**
Troubleshooting Electronic PLC Control Systems

Learn procedures for isolating and safely correcting problems in an industrial electricity/electronics system. Includes editing, uploading, downloading, saving and restoring PLC programs, and interpreting basic ladder logic instructions. Hands-on practice uses actual electronic controls and PLC system workstations. Prerequisites: ELTRO 210.

ELTRO 240 **5 credits**
Industrial Hydraulics and Pneumatics

Introduction to hydraulic and pneumatic systems, fluids, pumps, sensors, control devices, control valves, hydraulic cylinders, and receiver controllers. Includes system energy requirements, hydraulic and pneumatic logic, and the requirements and examples for interfacing into electronic Programmable Logic Controllers (PLC) automation controllers.

ELTRO 196/296 **1-5 credits**
Cooperative Work Experience

Designed to provide students with additional on-the-job practical field experience related to electrical and electronic industries. One credit is earned for each five hours of work experience per week. Variable credit. Prerequisite: instructor's permission.

Industrial Technology

INDT 100 **3 credits**
Introduction to Aerospace Electronics

Introduction to careers in aerospace and related industries. Hands-on practice in basic electrical/electronic laboratory procedures including measurement, meters, use and maintenance of other tools and equipment. Emphasizes personal safety and maintaining a safe workplace.

INDT 105 **10 credits**
Machining Technology I

An introductory course focusing on the history, purpose and safe operations of machine tools, primarily the lathe, milling machine and associated tooling. Students will learn machine limits, modern and historic practices, as well as construct assigned projects. Emphasis on tool speeds, feeds, layout, shop math and proper material selection.

INDT 115 **10 credits**
Machining Technology II

An intermediate course focusing on the creation of machine tooling for both lathes and milling machines. The course focus will include: metallurgy, heat treatment, precision grinding, cutting geometry, bit sharpening and unique tooling. Students will also gain a working knowledge of GD&T. Prerequisites: INDT 105.

INDT 125 **10 credits**
Machining Technology III

Students will demonstrate and build proficiency in manual or conventional machining skills. Student and instructor will agree on a complex project that student will create. Course will also begin the exploration of G-Code programming and basic CNC operation. Prerequisites: INDT 115.

INDT 135 **5 credits**
Metal Fabrication I

Designed to introduce commonly used metal fabrication techniques. Including but not limited to: measuring instrumentation, metal preparation, welding, machines (drills, saws, grinders, mills and lathes), and metal bending devices. Emphasis placed on the safe use of tooling, pre-planning and fabrication of structurally sound projects. Prerequisites: WELD 128,131,132 (or concurrent enrollment in any of the three).

INDT 136 **3 credits**
Metal Fabrication II

Introduces an intermediate level of fabrication techniques such as measurement instrumentation, metal preparation, welding, machines (drills, saws, grinders, mills and lathes) and metal benders. Emphasis is placed on the safe use of tooling, pre-planning and fabrication of structurally sound projects. Prerequisites: INDT 135.

INDT 137 **3 credits**
Metal Fabrication III Sheet Metal

Designed to introduce commonly used sheet metal fabrication techniques, including but not limited to: measuring, shearing, bending, lay-out, metal preparation, welding, machines (drills, saws, grinders, brakes, shears) and hand-held specialized sheet-metal tooling. Emphasis placed on the safe use of tooling, pre-planning, proper fitment and the fabrication of structurally sound projects. Prerequisites: WELD 128 or WELD 131 or WELD 132 or appropriate industry experience.

INDT 164 **5 credits**
Plant Maintenance

An overview of the proper maintenance associated with industrial and commercial equipment. Both mechanical and electrical hands-on skills will be included. Students will study bearing and bearing failures, vibration analysis, thermal imaging, specific plant safety hazards and the monetary benefits of a well-executed maintenance strategy.

INDT 205 **10 credits**
Machining Technology V

Intermediate course that explores the basics of 2D CAM programming. The students will also longhand program complex parts and fixtures. CNC operation and offset adjustments will become more prevalent this quarter. Prerequisites: INDT 125.

INDT 215 **10 credits**
Machining Technology V

Students will demonstrate and build proficiency in CNC machining skills. Students and instructor will agree on complicated project that student will create. Strong emphasis on intermediate CAM programming, in-depth machine setup, and independent operation of CNC machines. Prerequisites: INDT 205.

INDT 225 **10 credits**
Machining Technology VI

An advanced course that will explore 3D CAM programming in addition to showcasing the skills obtained in the previous five quarters. Students will discover potential job opportunities, create résumés, fill out applications and plan their career path. Prerequisites: INDT 215.

INDT 250 **2 credits**
Aerospace Electronics Capstone

Culmination of year-long certificate program including final project. Includes review for industry certification testing, guidance for compilation of simple portfolio for job-seeking purposes, and other job-seeking activities. Prerequisites: instructor's signature.

INDT 276 **3 credits**
Digital Design Capstone

Provides a capstone experience for the digital design program, including practical application of the design and computer skills learned within the degree, portfolio development, and industry familiarity. Prerequisites: capstone of program sequence, taken in the last quarter.

INDT 196/296 **1-5 credits**
Cooperative Work Experience

Intended to provide authentic experiences in the world of work by applying knowledge and skills learned in the classroom to a working environment. Variable credit class. Prerequisites: instructor's signature.

Japanese**JAPN& 121** **5 credits**
Japanese I

To develop students' communicative skills in everyday situations in Japanese. Learn reading and writing skills at the elementary level.

JAPN& 122 **5 credits**
Japanese II

Continuation of Japanese I. Develop communicative skills in everyday situations in Japanese. Learn reading and writing skills at the elementary level. Prerequisite: JAPN& 121.

JAPN& 123 **5 credits**
Japanese III

Continuation of Japanese II. Deals with more grammatical aspects of Japanese language than Japanese II. Primary objective is still to develop students' communicative skills in everyday situations in Japanese. Students also will learn reading and writing skills at the elementary level. Prerequisite: JAPN& 122 or equivalent.

JAPN& 221 **5 credits**
Japanese IV

Continuation of Japanese III. The primary objective is to enhance students' communicative skills in a variety of everyday situations in Japanese. Students will learn reading and writing skills at the intermediate level. Prerequisite: JAPN& 123 or instructor's signature.

JAPN& 222 **5 credits**
Japanese V

Continuation of Japanese IV. The primary objective is to enhance students' communicative skills in a variety of everyday situations in Japanese. Students will learn reading and writing skills at the intermediate level. Prerequisite: JAPN& 221 or instructor's signature.

JAPN& 223 **5 credits**
Japanese VI

Continuation of Japanese V. The primary objective is to enhance students' communicative skills in a variety of everyday situations and in some workplace situations in Japanese. Students will learn reading and writing skills at the intermediate level. Prerequisites: JAPN& 222 or instructor's signature.

Journalism**JOUR 101** **5 credits**
Introduction to Journalism

Journalistic principles and practices that prepare students to write for a variety of media audiences via a variety of media outlets—newspapers, online publications and social media. Course covers research, interviewing, reporting, editing and simple publishing of media content. Also addresses journalism history, law, ethics and social responsibility of news organizations. Prerequisites: ENGL& 101 or instructor's signature.

Latin**LATN 101** **5 credits**
Latin I

Introduction to the most fundamental elements of Latin with equal emphasis on reading, writing, speaking and listening skills. The classical pronunciation will be used in class, although Italian (liturgical) pronunciation can be given attention at the student's request.

LATN 102 **5 credits**
Latin II

Continued study of the fundamental elements of Latin with equal emphasis on reading, writing, speaking and listening skills. The classical pronunciation will be used in class, although Italian (liturgical) pronunciation can be given attention at the student's request. Prerequisite: LATN 101 or equivalent.

LATN 103 **5 credits**
Latin III

Conclusion of study of the fundamental elements of Latin with equal emphasis on reading, writing, speaking and listening skills. The classical pronunciation will be used in class, although Italian (liturgical) pronunciation can be given attention at the student's request. Prerequisite: LATN 102 or equivalent.

LATN 110 **1-4 credits**
Conversational Latin Workshop

An immersive, activity-based workshop in Latin conversation. Spend a minimum of two and a maximum of 10 and a half days speaking and engaging in a wide variety of both specialized and common daily activities in Latin. Prerequisite: one year of Latin and instructor's signature.

LATN 220 **1-4 credits**
Conversational Latin Workshop

An immersive, activity-based workshop in Latin conversation. Spend a minimum of two and a maximum of 10 and a half days speaking and engaging in a wide variety of both specialized and common daily activities in Latin. Prerequisite: two or more years of Latin and instructor's signature.

Library**LIBR 101** **2 credits**
Computer Research Skills

Covers the basic skills necessary to acquire and use information from a variety of electronic sources. Students will survey the types of information available via the WVC library computer network and the Internet with an emphasis on practical research skills. Prerequisite: basic computer skills are recommended.

LIBR 105 **5 credits**
Learning for the 21st Century

Develops a framework for online research and builds skills for successful online learning. Through quarter-long research projects, examine strategies for locating, evaluating and applying information resources in the research process and explore information issues such as censorship, intellectual property and freedom of information. Independent library field trip required. Prerequisites: eligibility for ENGL& 101 and basic computer skills.

Mathematics**MATH 090** **5 credits**
Basic Mathematics

Covers basic operations of adding, subtracting, multiplying, dividing; powers and roots with whole, fractional, and decimal numbers. Introduces adding, subtracting, multiplying and dividing with signed numbers. Covers ratios/proportions and percents. For students who need a firm foundation in math before pursuing academic objectives and/or higher level math. Calculators not

allowed. Prerequisites: appropriate ABE or placement score.

MATH 092T **5 credits**
Introduction to Technical Math

An introductory course in applied mathematics for Industrial and Technical Programs that covers arithmetic operations with signed numbers, fractions and decimals; measuring methodology and unit conversion; and basic algebraic concepts including solving linear equations and systems of equations. Course intended to prepare students for MATH 100T.

MATH 093 **5 credits**
Pre Algebra

The course is designed for students transitioning between arithmetic and algebra. Students will review arithmetic with real numbers, work with expressions containing variables, solve linear equations, graph linear equations in two dimensions, calculate slopes and intercepts for lines, and use unit analysis to solve applications. This course prepares students for MATH 098. Prerequisites: "C" or better in MATH 090 or appropriate placement score.

MATH 098 **5 credits**
Elementary Algebra

Topics include solving linear, quadratic (by factoring) and rational equations; solving a linear system of equations; manipulating polynomials (adding, subtracting, multiplying and dividing); and using exponent properties to simplify expressions. Students will also graph linear equations in two variables, calculate slopes, and find linear functions. Prerequisites: "C" or better in MATH 093 or appropriate placement recommendation.

MATH 099 **5 credits**
Intermediate Algebra

Topics include: solving quadratic, absolute value, rational, radical, exponential and logarithmic equations; graphing shifted quadratic and absolute value functions; simplifying radical expressions, solving systems of linear inequalities; evaluating logarithms; finding the vertex of a quadratic function. Prerequisites: a "C" or better in MATH 098 or appropriate placement recommendation.

MATH 100T **5 credits**
Technical Math for Industrial Fields

Applied course in mathematics for industrial fields. Topics include geometry and basic trigonometry and their applications to industry. Not intended for student planning to transfer to a four-year college. Prerequisites: MATH 092T or higher with a grade of "C" or better or appropriate placement score.

MATH& 107 **5 credits**
Math in Society

A survey in mathematical topics focusing on topics such as growth, finance, and statistics that are essential knowledge for an educated citizen. Students will build confidence in mathematical reasoning relevant to a wide range of liberal arts and humanities applications. Prerequisites: MATH 099 with a grade of "C" (2.0) or better or appropriate placement score.

MATH 140 **5 credits**
Precalculus for Business and Social Sciences

Functions in context of business, social science and economics. Applications are emphasized including marginal analysis of cost, profit, revenue; break-even; supply and demand; present and future values of annuities; quantities that grow

or decay exponentially; and data analysis to determine and use appropriate linear, polynomial, exponential, and quadratic mathematical models. Prerequisites: MATH 099 with a grade of "C" or better or appropriate placement score/criteria.

MATH& 141 **5 credits** **Precalculus I**

Functions and their graphs (including elementary, exponential and logarithmic functions, and the conic sections) and their inverses in the context in which they are used in calculus. Work with graphing calculators will be integrated into the course. Prerequisites: MATH 099 with a "B" or better, MATH 140, or appropriate placement score.

MATH& 142 **5 credits** **Precalculus II**

Introduction to trigonometric functions as they relate to the unit circle and right triangle. Graphs of the functions, applications, problem solving, identities, inverse functions, complex numbers, vectors and analytic geometry including polar coordinates and parametric equations. The basic concepts of sequences and series will be covered. Prerequisites: MATH 140 or MATH& 141 with a grade of "C" (2.0) or better or appropriate placement score.

MATH& 146 **5 credits** **Introduction to Stats**

Fundamental concepts and applications of descriptive and inferential statistics. Includes measures of central tendency and variability, statistical graphs, probability, the normal distribution, hypothesis testing, confidence intervals, ANOVA testing and regression analysis. Graphing calculator or statistical software techniques are used throughout the course. Prerequisites: MATH 099 with a "C" (2.0) or better, or appropriate placement score.

MATH& 148 **5 credits** **Business Calculus**

Differential and integral calculus designed for students majoring in business administration, social sciences and other programs requiring a short course in calculus. Work with graphing calculators will be integrated into the course. Prerequisites: MATH 140 or MATH& 141 with "C" or better or appropriate placement score.

MATH& 151 **5 credits** **Calculus I**

Introduction to limits, derivatives, higher-order derivatives and implicit differentiation. Applications involving maximums and minimums, and related-rates. Analysis of graphs of functions. Prerequisites: MATH& 142 with a "C" (2.0) or better or appropriate placement score.

MATH& 152 **5 credits** **Calculus II**

Definite and indefinite integrals, techniques of integration. Application of the integral to areas, volumes and work problems. Derivatives and antiderivatives of the transcendental functions. Prerequisite: MATH& 151 with a "C" or better or appropriate placement score.

MATH& 153 **5 credits** **Calculus III**

More techniques and applications of integration. Parametric equations and polar coordinates, vectors and vector-valued functions, infinite series and sequences. Prerequisite: MATH& 152 with a grade of "C" (2.0) or better or appropriate placement score.

MATH& 171 **5 credits** **Math for Elementary Educators I**

First of three math courses intended for elementary educators. Topics include number theory, mathematical problem solving, real number systems, arithmetic operations and functions. Other topics related to math instruction at the Pre-K-8 level will be included. Hands-on activities are incorporated. Prerequisites: appropriate assessment score, or a grade of "C" (2.0) or higher in MATH 099 or a college-level math class. Evidence of competency in MATH 099 is required for this course to transfer.

MATH& 172 **5 credits** **Math for Elementary Educators II**

Second of three math courses intended for elementary educators. Topics include two dimensional geometric shapes and their properties, angle measures, areas and perimeters, three dimensional figures, geometric construction, similar triangles, graphing in the coordinate system, trigonometric functions and tessellations. Hands-on activities are incorporated. Prerequisites: MATH& 171 with a grade of "C" (2.0) or better.

MATH& 173 **5 credits** **Math for Elementary Education III**

Third of three math courses intended for elementary educators. Topics include arithmetic operations on real numbers as decimals and rational numbers; proportions; percents and their applications; probability; counting; data analysis and descriptive statistics. Hands-on activities are incorporated. Prerequisites: MATH& 171 with a grade of "C" (2.0) or better or instructor permission.

MATH 200 **5 credits** **Finite Mathematics**

Survey of the essential quantitative ideas and mathematical techniques used in decision making in a diversity of disciplines. Includes systems of equations and matrices, linear programming, finance, probability and its uses. Additional topics may be included. Graphing calculators will be integrated into the course. Prerequisites: MATH 097 or MATH 099 with a grade of "C" (2.0) or better or appropriate placement score.

MATH 211 **5 credits** **Linear Algebra**

Studies matrices, determinants, systems of equations, vector spaces including row, column, null and nullspace of the transpose, orthogonality, inner product spaces, least square solutions, eigenvalues/eigenvectors, transformation matrices, dynamical systems and diagonalization. Geometrical understanding will be emphasized. Applications in business, computer science and engineering and an introduction to proofs. Prerequisites: MATH& 152 or instructor's signature.

MATH 238 **5 credits** **Differential Equations**

Modeling with and solving of first- and higher-order ordinary differential equations, systems of linear equations, Laplace Transforms and series solutions of linear differential equations. Methods include numerical, qualitative and analytic approaches. The course will include modeling applications in engineering, chemistry and population studies. Prerequisites: MATH& 152 or instructor's signature.

MATH& 254 **5 credits**
Calculus IV

Multivariable calculus, vector functions, vector fields, gradients, functions of several variables, double and triple integrals in rectangular, polar, cylindrical, and spherical coordinate systems, line and surface integrals, Green's Theorem, curl and divergence, Divergence Theorem, Stokes' Theorem. Prerequisites: MATH & 153 with a grade of "C" (2.0) or better or appropriate placement score.

Medical Assistant**MA 110** **5 credits**
Medical Office I

Beginning skill for use in the business/medical office, including computers, reception, appointment scheduling, office mail, telephone skills, medical filing, medical coding and insurance forms. (Formerly HCA 110.) Prerequisites: acceptance into the medical assistant program or instructor signature.

MA 111 **5 credits**
Body Structure and Function

Study of body structure and function of body systems and related disease commonly associated with each system. Diagnostic and laboratory procedures used for diagnoses are discussed throughout the course. (Formerly HCA 111.) Prerequisites: acceptance into the medical assistant program or instructor signature.

MA 112 **5 credits**
Pharmacology

Basic concepts of pharmacology, including basic drug categories and use of most commonly prescribed medications in the medical office. Includes a review of math concepts related to medications, dose calculations, administration principles, injection preparations and site choice, and safety practices associated with medication administration. (Formerly HCA 112.) Prerequisites: acceptance into the medical assistant program or instructor signature.

MA 113 **1 credit**
HIV/AIDS Education

Meets requirement of the AIDS Omnibus Bill passed by the Washington State legislature regarding HIV/AIDS education for employees working in a health care setting. OSHA's bloodborne pathogens standard concerning universal precautions is emphasized. (Formerly HCA 113.) Prerequisites: acceptance into the medical assistant program or instructor signature.

MA 115 **7 credits**
Clinical Procedures I

Introduction to clinical procedures for the medical office, including taking a medical history, exam room preparations, vital signs and measurements, assisting with minor surgery, medical asepsis and infection control, universal precautions for blood and body fluids, principles of rehabilitation and charting. (Formerly HCA 115.) Prerequisites: acceptance into the medical assistant program or instructor signature.

MA 116 **3 credits**
Office Communications

Includes integrated computer applications and development of professional written communication skills for use in the medical office, and principles of consumer relations. (Formerly HCA 116.) Prerequisites: acceptance into the medical assistant program or instructor signature.

MA 118 **2 credits**
Medical Law and Ethics

Study of workplace legalities, including a basic overview of the legal system and legal and ethical considerations for the medical assistant in the medical office. Topics include medical records, management, medical contracts, concepts of health care reform and workplace responsibilities, including confidentiality, informed consent and patient rights. (Formerly HCA 118.) Prerequisites: acceptance into the medical assistant program or instructor signature.

MA 120 **5 credits**
Medical Office II: Advanced Office Skills

Develops advanced skill in the use of computer systems for office billing procedures, including established accounts, accounts receivable and accounts payable, payroll inventory control, collections, and purchasing. Explores the basic types of medical insurance, study of claims processing and third-party reimbursement. (Formerly HCA 120.) Prerequisites: MA 110 or instructor signature.

MA 125 **7 credits**
Clinical Procedures II

Covers the principles of nutrition and dietary modifications as a form of treatment. Develop clinical skills in the following areas: care of cardiac patients (including EKGs), pediatrics, reproductive health, GI, pulmonary, ortho, neuro and EENT. (Formerly HCA 125.) Prerequisites: acceptance in the medical assistant program, continued good standing in program.

MA 135 **7 credits**
Clinical Procedures III

General introduction to the medical laboratory and use of the microscope. Topics of study include principles of safe specimen collection, handling and testing, phlebotomy; introduction to microbiology and hematology with special attention given to CLIA waived testing, urinalysis, principles of safe medication administration, and care of the diabetic patient. (Formerly HCA 135.) Prerequisites: acceptance in the medical assistant program, continued good standing in program.

MA 260 **8 credits**
Practicum/Externship for Health Care Assistant

Application of knowledge and skill in an unpaid experience in a medical office (160 hours). (Formerly HCA 260.) Prerequisites: MA 115, 125, 135.

MA 265 **2 credits**
Practicum Seminar

Focus is on the externship experience (HCA/MA 260) and transitioning from student to professional medical assistant. (Formerly HCA 265.) Prerequisite: concurrent enrollment in MA 260.

Medical Laboratory Technology**MLT 100** **1 credit**
Introduction to Medical Laboratory Technology

Introduction to the field of medical laboratory technology with a focus on general topics related working in clinical laboratories. For students interested in exploring employment opportunities in medical laboratories.

MLT 102 **1 credit**
Phlebotomy

Students will learn the theory of phlebotomy and how it relates to the healthcare delivery system, lab safety and infection control, anatomy and physiology, specimen collection and handling, phlebotomy equipment, quality assurance and control, communication and legal issues. Prerequisites: MLT 100.

MLT 150 **4 credits**
Basic Lab Theory

Introduction to the fundamental theories of laboratory practice and safety, including studies in hematology microbiology, clinical chemistry, serology, blood banking, urinalysis and venipuncture. Prerequisites: acceptance into the MLT program, MLT 102 and concurrent enrollment in MLT 151.

MLT 151 **3 credits**
Basic Lab Practice

Introduction to the fundamental skills and procedures necessary in the clinical laboratory, including all of the practical laboratory tasks associated with the topics listed for MLT 150. Prerequisites: acceptance into the medical laboratory technology program, MLT 102 and concurrent enrollment in MLT 150.

MLT 210 **10 credits**
Clinical Experience I

Practical on-the-job training in a clinical setting. Rotation through the laboratory departments, practicing test performance under direct supervision of the laboratory's technologists or technicians. Prerequisites: MLT 150 and 151, or equivalent.

MLT 213 **7 credits**
Hematology

In-depth training in the practical and theoretical subjects associated with hematology, hemostasis, immunology, serology and immunohematology. Prerequisites: BIOL& 242 and concurrent enrollment in MLT 210 and MLT 214.

MLT 214 **3 credits**
Hematology Lab

Basic techniques of blood cell recognition and enumeration; typical serological and blood banking procedures are practiced. Blood coagulation studies practiced with results correlated to diagnosis of diseases of the blood. Prerequisites: MLT 151 and concurrent enrollment in MLT 213.

MLT 220 **10 credits**
Clinical Experience II

Continuing practical on-the-job training in a clinical setting. Rotation through the laboratory departments, practicing test performance under direct supervision of the laboratory's technologists or technicians. Prerequisites: MLT 210 and concurrent enrollment in MLT 223.

MLT 223 **7 credits**
Clinical Microbiology

In-depth training in the practical and theoretical subjects associated with clinical bacteriology, parasitology, mycology and virology. Prerequisites: BIOL& 260 and concurrent enrollment in MLT 220 and MLT 224.

MLT 224 **3 credits**
Clinical Microbiology Lab

Fundamental practice of diagnostic medical bacteriology, parasitology and mycology with simulated clinical specimens

evaluated and the offending microbe identified. Prerequisites: BIOL& 260 and concurrent enrollment in MLT 223.

MLT 230 **10 credits**
Clinical Experience III

Continuing practical on-the-job training in a clinical setting. Rotation through the laboratory departments, practicing test performance under direct supervision of the laboratory's technologists or technicians. Prerequisites: MLT 220 and concurrent enrollment in MLT 233.

MLT 233 **7 credits**
Clinical Chemistry and Urinalysis

Fundamentals of chemical analysis and urinalysis procedures in the medical laboratory. Emphasis on proper use and care of equipment, safety procedures, recognition of sources of error, and the use of a variety of statistical tools as part of a quality-assurance program. Prerequisites: CHEM& 131, BIOL& 242 and concurrent enrollment in MLT 230 and MLT 234.

MLT 234 **3 credits**
Clinical Chemistry Lab

Practice of chemical analysis and urinalysis procedures in wide use in the medical laboratory, using visual methods, spectrophotometry, potentiometry, reflectance spectrophotometry and kinetic assays. Prerequisites: CHEM&131 and concurrent enrollment in MLT 233.

MLT 240 **10 credits**
Clinical Experience IV

Continuing practical on-the-job training in different departments with some opportunities to return for additional training in those areas where instructors feel it is needed. Rotation through the laboratory departments under direct supervision of the laboratory's technologists or technicians. Prerequisites: MLT 230.

Meteorology**METR 110** **5 credits**
Earth's Changing Climate

Study climate and climate change. Determine what controls global climate and individual climate zones on earth. Reconstruct changing climates of the past. Analyze the effects of greenhouse gases and aerosols, human influences on climate, and the effects of Earth's changing climate on humans and other species.

METR 210 **5 credits**
Introduction to Weather and Climate

Explore Earth's atmosphere and the factors that determine weather, seasons and climate. Practice measuring and forecasting the weather. Learn to read weather maps, identify clouds, and understand the causes and consequences of extreme storms. Includes laboratory. Prerequisites: MATH 093 or higher.

Music**MUS 100** **5 credits**
Introduction to Music

Introduction to music theory. Emphasis on fundamental concepts, including notation, meter, rhythm, diatonic scales, key signatures, intervals, harmony, ear training, songwriting, and keyboard and fretted instruments.

MUSC& 105 **5 credits**
Music Appreciation

Humanities option for the music or non-music major. Lectures, readings, recordings, video presentations, guest artists and live concert attendance with emphasis on guiding students to musical understanding and appreciation of the musical styles and forms of western music from the Middle Ages through the 20th century.

MUS 110 **1 credit**
Individual Voice Instruction

College-level private vocal instruction. Primarily for music majors and minors but open to all qualifying students. Instructor lessons fees and accompanist fees (in addition to tuition) apply. Performance at end of term student recital and quarterly jury participation is mandatory. Audition required. May be repeated for credit. Prerequisite: instructor's signature.

MUS 111 **1 credit**
Individual Piano Instruction

College-level private piano instruction. Primarily for music majors and minors but open to all qualifying students. Instructor lessons fees (in addition to tuition) apply. Performance at end of term student recital and quarterly jury participation is mandatory. Audition required. May be repeated for credit. Prerequisite: instructor's signature.

MUS 112 **1 credit**
Individual Instrument Instruction

College-level private instrument instruction. Primarily for music majors and minors but open to all qualifying students. Instructor lessons fees and accompanist fees (in addition to tuition) apply. Performance at end of term student recital and quarterly jury participation is mandatory. Audition required. May be repeated for credit. Prerequisites: instructor's signature.

MUS 113 **5 credits**
Jazz History

A non-music major humanities course designed to trace the development of jazz from its roots to its contemporary modern styles.

MUS 114 **3 credits**
Survey of Rock: History of Rock Styles

A non-music major humanities course designed to trace the development of rock musical styles from roots in American pop music, blues and jazz to modern present day rock styles.

MUS 116 **5 credits**
Introduction to the Music/Audio Technology I

An introduction and overview to industry music/audio technology. Receive theoretical and practical experience in acoustics, MIDI, digital sequencing, non-destructive digital recording and electronic music publishing. Prerequisites: knowledge of notation and rhythm required or concurrent enrollment in MUS 100 highly recommended, and basic computer literacy.

MUS 120 **1 credit**
Voice Class Instruction

Introduction to the principles of voice production, vocal literature, techniques and stage presence, including basic preparation for solo performance. Class members may perform in public. Students may incur extra fees for accompanist assistance. May be repeated for credit. Prerequisites: knowledge of notation and rhythm is expected or concurrent enrollment in MUSC& 121 is suggested. Students should have basic vocal capabilities (pitch

matching, average or better vocal range).

MUSC& 121 **2 credits**
Ear Training 1

Fundamental ear training includes intervals, major and minor scales, triads in root and inverted positions, rhythm reading in simple and compound meter. Sight singing includes simple diatonic major and minor melodies. Prerequisites: Knowledge of basic music notation or instructor's signature. Must be taken concurrently with MUSC& 131.

MUSC& 122 **2 credits**
Ear Training 2

Continuation of MUSC& 121 with emphasis on triad and seventh chord inversions, chord progressions in major and minor modes, recognition of plagal and authentic cadences, melodic dictation in major and minor modes, and more advanced rhythmic reading and dictation in simple and compound meters. Prerequisites: MUSC& 121 or instructor's signature. Must be taken concurrently with MUSC& 132.

MUSC& 123 **2 credits**
Ear Training 3

Continuation of MUSC& 122 with emphasis on triads and seventh chords in all inversions. Harmonic dictation to include modulations to near-related keys, nonharmonic tones, secondary dominants, altered chords and augmented sixth chords. Melodic dictation to include chromatic tones; rhythmic dictation to include complex examples in simple, compound and mixed meters. Prerequisites: MUSC& 122 or instructor signature. Must be taken concurrently with MUSC& 133.

MUS 125 **1 credit**
Piano Class Instruction

Music reading and keyboard techniques from beginning through intermediate levels. No music background required. Emphasis on note reading, rhythm reading, key signatures, major scales and improvising with primary triads. May be repeated for credit. Prerequisite: instructor's signature.

MUSC& 131 **3 credits**
Music Theory 1

Develops an understanding of elementary compositional techniques. Emphasis on the structure of tonality, triads in all inversions (doubling and spacing), voice leading, seventh chords, phrase structure and cadences, nonharmonic tones, harmonic progression, and basic techniques of harmonization. Prerequisites: knowledge of basic music notation or instructor's signature. Must be taken concurrently with MUSC& 121.

MUSC& 132 **3 credits**
Music Theory 2

Continuation of MUSC& 131 with emphasis on triad and seventh chord inversions, nonharmonic tones and the harmonization of melodies. Student compositions are performed by a lab choir. Further emphasis analysis techniques. Prerequisites: MUS 106 or MUSC& 131 or instructor's signature. Must be taken concurrently with MUSC& 122.

MUSC& 133 **3 credits**
Music Theory 3

Continuation of MUSC& 132 with a working knowledge of triads and seventh chords in major and minor modes, nonharmonic tones, and the harmonization of melody. Introduction to chromatic harmony. Prerequisites: MUS 107 or MUSC& 132

or instructor's signature. Must be taken concurrently with MUSC&123.

MUS 145 **1 credit**
Brass Class Instruction

An introductory master class that covers the principles of brass instrumental technique, performance and literature. Students will perform in class regularly and must have their own instruments. May be repeated for credit. Prerequisites: Students should have prior instrument experience. Knowledge of notation and rhythm required or concurrent enrollment in MUS 100.

MUS 146 **1 credit**
Woodwind (single reed) Class Instruction

An introductory master class that covers the principles of woodwind (single reed) instrumental technique, performance and literature. Students will perform in class regularly and must have their own instruments. May be repeated for credit. Prerequisites: students should have prior instrument experience. Knowledge of notation and rhythm required or concurrent enrollment in MUS 100.

MUS 161 **1 credit**
Community Chorus

Choral singing open to all students. No audition required, but preliminary contact with director required for participation. Basic vocal and choral techniques, vocalization, optional public concerts. Literature to include a diversity of styles ranging from classical to contemporary. May be repeated for credit.

MUS 170 **2 credits**
WVC Chamber Choir

A select vocal performance ensemble: the WVC Chamber Choir is a primary recruiting ensemble for the WVC Music Department. Participation will involve numerous performances and varied community outreach activities. Audition required. May be repeated for credit. Prerequisites: previous vocal/choral experience or instructor approval.

MUS 172 **2 credits**
WVC Vocal Jazz Ensemble

A select vocal jazz ensemble that rehearses and performs standard jazz choir repertoire in the style of Manhattan Transfer and New York Voices. Typical ensemble configuration includes a rhythm section and singers on individual microphones. Audition required. May be repeated for credit. Prerequisites: previous vocal/choral experience or instructor approval. Concurrent enrollment in MUS 170 or MUS 270 is required.

MUS 173 **2 credits**
Mariachi Music

Traditional Mexican mariachi music: violin, trumpet, guitar, guitarron, vihuela and voice. Learn traditional techniques and forms including the "son," ranchera, bolero, huapango and polka. Students will generally provide their own instrument. Maybe repeated for credit. Prerequisites: instructor's signature, students must be playing mariachi at an intermediate level on their instrument.

MUS 174 **1-2 credits**
Jazz Ensemble

Preparation and performance of jazz ensemble literature. Open to all students. The WVC Jazz Ensemble performs several concerts each term. Students are to bring their own instruments. May be repeated for credit. Prerequisites: prior instrumental and ensemble proficiency required. Instructor's permission.

MUS 175 **1-2 credits**
Instrumental Ensemble

Preparation and performance of varied instrumental literature with the Wenatchee Valley Symphony or other professional or semi-professional instrumental ensembles in the greater Wenatchee area. This may include the British Brass Band, the Wenatchee Big Band and others. Students to bring their own instruments. May be repeated for credit. Prerequisites: previous performing experience and a minimum of intermediate-level technical proficiency required. Instructor's permission. Audition may be required.

MUS 177 **1-2 credits**
Guitar Orchestra

Preparation and performance of music for guitar orchestra. Course will focus on developing ensemble, technical and interpretive skills. Students to bring their own instruments. May be repeated for credit. Prerequisites: previous performing experience and a minimum of intermediate-level technical proficiency recommended. Instructor's permission. Audition may be required.

MUS 210 **1 credit**
Individual Voice Instruction

College-level private vocal instruction. Primarily for music majors and minors but open to all qualifying students. Instructor lessons fees (in addition to tuition) apply. Fees for accompanists (outside of tuition and course fees are likely to apply). Performance at end of term student recital and quarterly jury participation is mandatory. Audition required. May be repeated for credit. Prerequisites: instructor's signature. MUS 110 (a student must demonstrate superior competency and knowledge of specific literature and pedagogy during MUS 110 to be allowed to enroll in MUS 210).

MUS 211 **1 credit**
Individual Piano Instruction

College-level private piano instruction. Primarily for music majors and minors but open to all qualifying students. Instructor lessons fees (in addition to tuition) apply. Performance at end of term student recital and quarterly jury participation is mandatory. Audition required. May be repeated for credit. Prerequisites: instructor's signature. MUS 111 (a student must demonstrate superior competency and knowledge of specific literature and pedagogy during MUS 111 to be allowed to enroll in MUS 211).

MUS 212 **1 credit**
Individual Instrument Instruction

College level private instrumental instruction. Primarily for music major and minors but open to all qualifying students. Instructor lessons fees (in addition to tuition) apply. Fees for accompanists (outside of tuition and course fees are likely to apply). Performance at end of term student recital and quarterly jury participation is mandatory. Audition required. May be repeated for credit. Prerequisites: instructor's signature. MUS 112 (a student must demonstrate superior competency and knowledge of specific literature and pedagogy during MUS 112 to be allowed to enroll in MUS 212).

MUS 221 **1 credit**
Piano Class Instruction

Continuation of MUS 125 for those students desiring to learn more advanced playing techniques. May be repeated for credit. Prerequisites: MUS 125 or equivalent or instructor's signature.

MUSC& 241 **5 credits**
Music Theory 4

The fourth of a six-term course sequence in written and aural music theory: learn to analyze, employ, sing and transcribe chromatic music and intermediate forms. Prerequisites: MUSC& 133 and MUSC& 123 or equivalent.

MUSC& 242 **5 credits**
Music Theory 5

The fifth of a six-term course sequence in written and aural music theory: learn to analyze, employ, sing and transcribe advanced chromatic music and advanced forms. Prerequisites: MUSC& 241 or equivalent.

MUSC& 243 **5 credits**
Music Theory 6

The sixth of a six-term course sequence in written and aural music theory: learn to analyze, employ, sing and transcribe advanced chromatic music and advanced forms as well as 20th century techniques. Prerequisites: MUSC&242 or equivalent.

MUS 261 **1 credit**
Community Chorus

Choral singing open to all students. No audition required, but contact with the director is required prior to participation. Basic vocal and choral techniques, vocalization, optional public concerts. Literature to include a diversity of styles ranging from classical to contemporary. May be repeated for credit. Prerequisites: instructor's signature.

MUS 270 **2 credits**
WVC Chamber Choir

A select vocal performance ensemble: Participation will involve numerous performances and varied community outreach activities. Audition required. May be repeated for credit. Prerequisites: previous vocal/choral experience or instructor's signature.

MUS 272 **2 credits**
WVC Vocal Jazz Ensemble

A select vocal jazz ensemble that rehearses and performs standard jazz choir repertoire in the style of Manhattan Transfer and New York Voices. Typical ensemble configuration includes a rhythm section and singers on individual microphones. Audition required. May be repeated for credit. Prerequisites: previous vocal/choral experience or instructor approval. Concurrent enrollment in MUS 170 or MUS 270 is required.

MUS 273 **2 credits**
Mariachi Music

Traditional Mexican mariachi music; violin, trumpet, guitar, guitarron, vihuela and voice. Learn traditional techniques and forms including the "son," ranchera, bolero, huapango and polka. Students will generally provide their own instrument. May be repeated for credit. Prerequisites: instructor's signature, students must be playing mariachi at an intermediate level on their instrument.

MUS 274 **1-2 credits**
Jazz Ensemble

Preparation and performance of jazz ensemble literature. Open to all students. The WVC Jazz Ensemble performs several concerts each term. Students are to bring their own instruments. May be repeated for credit. Prerequisites: prior instrumental and ensemble proficiency required. Instructor's signature.

MUS 275 **1-2 credits**
Instrumental Ensemble

Preparation and performance of varied instrumental literature with the Wenatchee Valley Symphony or other professional or semi-professional instrumental ensembles in the greater Wenatchee area. This may include the British Brass Band, the Wenatchee Big Band and others. Students to bring their own instruments. May be repeated for credit. Prerequisites: previous performing experience and a minimum of intermediate level technical proficiency required. Instructor's signature. Audition may be required.

MUS 277 **1-2 credits**
Guitar Orchestra

Advanced preparation and performance of music for guitar orchestra. Course will focus on advanced ensemble, technical and interpretive skills. Students to bring their own instruments. May be repeated for credit. Prerequisites: previous performing experience and a minimum of advanced-level technical proficiency recommended. Instructor's signature. Audition may be required.

Native Language**NAL 101** **5 credits**
Native American Language I: nselxcin

Introduction to nselxcin, the language spoken by the Okanogan, Lakes, Colville, San Poil, Nespelem and Methow tribes of the Colville Reservation. Basic pronunciation, the phonetic alphabet and vocabulary will be covered. Gain an awareness of the interconnection of language and culture.

NAL 102 **5 credits**
Native American Language II: nselxcin

Continuation of NAL 101. Some instruction will be in nselxcin, the language spoken by the Okanogan, Lakes, Colville, San Poil, Nespelem and Methow tribes of the Colville Reservation. Students will increase their ability to correctly pronounce the phonemes of the language, as well as engage in elementary reading, writing and conversation. Prerequisites: NAL 101 or instructor's signature.

NAL 103 **5 credits**
Native American Language III: nselxcin

Continuation of NAL 102. Moderate use of nselxcin (the language spoken by the Okanogan, Lakes, Colville, San Poil, Nespelem and Methow tribes of the Colville Reservation) for instruction. Students will further their abilities in the language. Prerequisite: NAL 102 or instructor's signature.

NAL 111 **5 credits**
Native American Language I: nimipu

Introduction to nimipu, the language spoken by the Nez Perce and Palouse tribes of the Colville Reservation. Basic pronunciation, the phonetic alphabet, and elementary grammar and vocabulary will be covered. Students will gain an awareness of the interconnection of language and culture.

NAL 112 **5 credits**
Native American Language II: nimipu

Continuation of NAL 111. Some instruction will be in nimipu, the language spoken by the Nez Perce and Palouse tribes of the Colville Reservation. Students will increase their ability to correctly pronounce the phonemes of the language, as well

as engage in elementary reading, writing and conversation. Prerequisites: NAL 111 or instructor's signature.

NAL 113 **5 credits**
Native American Language III: nimipu

Continuation of NAL 112. Moderate use of nimipu (the language spoken by the Nez Perce and Palouse tribes of the Colville Reservation) for instruction. Students will further their abilities in the language. Prerequisite: NAL 112 or instructor's signature.

NAL 121 **5 credits**
Native American Language I: nxa?amxcin

Introduction to nxa?amxcin, the language spoken by the Moses/Columbia, Wenatchee, Entiat and Chelan tribes of the Colville Reservation. Basic pronunciation, the phonetic alphabet, and elementary grammar and vocabulary will be covered. Students will gain an awareness of the interconnection of language and culture.

NAL 122 **5 credits**
Native American Language II: nxa?amxcin

Continuation of NAL 121. Some instruction will be in nxa?amxcin, the language spoken by the Moses, Columbia, Wenatchee, Entiat and Chelan tribes of the Colville Reservation. Students will increase their ability to correctly pronounce the phonemes of the language, as well as engage in elementary reading, writing and conversation. Prerequisite: NAL 121 or instructor's signature.

NAL 123 **5 credits**
Native American Language III: nxa?amxcin

Continuation of NAL 122. Moderate use of nxa?amxcin (the language spoken by Moses, Columbia, Wenatchee, Entiat and Chelan tribes of the Colville Reservation) for instruction. Students will further their abilities in the language. Prerequisite: NAL 122 or instructor's signature.

NAL 204 **5 credits**
Native American Language IV: nselxcin

Continuation of NAL 103. Increased use of the nselxcin language for class instruction. Students will deepen their understanding of the interrelationship of language and culture while furthering their skills in the language. Prerequisite: NAL 103 or instructor's signature.

NAL 205 **5 credits**
Native American Language V: nselxcin

Continuation of NAL 204. Most instruction is in nselxcin, the language spoken by the Okanogan, Lakes, Colville, San Poil, Nespelem and Methow tribes of the Colville Reservation. Students will gain a larger vocabulary and the ability to carry on impromptu conversations. Prerequisite: NAL 204 or instructor's signature.

NAL 206 **5 credits**
Native American Language VI: nselxcin

Continuation of NAL 205. Instruction is in nselxcin, the language spoken by the Okanogan, Lakes, Colville, San Poil, Nespelem and Methow tribes of the Colville Reservation. Cultural topics are discussed in depth. Prerequisite: NAL 205 or instructor's signature.

NAL 214 **5 credits**
Native American Language IV: nimipu

Continuation of NAL 113. Increased use of one of the nimipu, the language spoken by the Nez Perce and Palouse tribes of the Colville Reservation, for class instruction. Students will deepen their understanding of the interrelationship of language and culture while furthering their skills in the language. Prerequisite:

NAL 113 or instructor's signature.

NAL 215 **5 credits**
Native American Language V: nimipu

Continuation of NAL 214. Most instruction is in nimipu, the language spoken by the Nez Perce and Palouse tribes of the Colville Reservation. Students will gain a larger vocabulary and the ability to carry on impromptu conversations. Prerequisite: NAL 214 or instructor's signature.

NAL 216 **5 credits**
Native American Language VI: nimipu

Continuation of NAL 215. Instruction is nimipu, the language spoken by the Nez Perce and Palouse tribes of the Colville Reservation. Cultural topics are discussed in depth. Prerequisite: NAL 215 or instructor's signature.

NAL 224 **5 credits**
Native American Language IV: nxa?amxcin

Continuation of NAL 123. Increased use of the nxa?amxcin, the language spoken by the Moses, Columbia, Wenatchee, Entiat and Chelan tribes of the Colville Reservation, for class instruction. Students will deepen their understanding of the interrelationship of language and culture while furthering their skills in the language. Prerequisite: NAL 123 or instructor's signature.

NAL 225 **5 credits**
Native American Language V: nxa?amxcin

Continuation of NAL 224. Most instruction is in nxa?amxcin, the language spoken by the Moses, Columbia, Wenatchee, Entiat and Chelan tribes of the Colville Reservation. Students will gain a larger vocabulary and the ability to carry on impromptu conversations. Prerequisite: NAL 224 or instructor's signature.

NAL 226 **5 credits**
Native American Language VI: nxa?amxcin

Continuation of NAL 225. Instruction is in nxa?amxcin, the language spoken by the Moses, Columbia, Wenatchee, Entiat and Chelan tribes of the Colville Reservation. Cultural topics are discussed in depth. Prerequisite: NAL 225 or instructor's signature.

Natural Resources

NATR 102 **3 credits**
Maps and Navigation

Learn to navigate accurately and safely in an outdoor workplace and to perform map and field calculations required for effective and safe natural resource field work. Includes field use of maps and GPS (global positioning systems) and a brief introduction to GIS (Geographical Information Systems) in natural resource management.

NATR 103 **3 credits**
Field Safety and Preparedness

Preparation for safe and efficient natural resource field work through understanding of when, where and how to safely use field equipment and tools. Emphasizes awareness of situational safety issues in the human and non-human environment. Includes field application of tools and equipment commonly used in natural resource jobs.

NATR 108 **3 credits**
Exploring Natural Resources Management

A panoramic view of ecosystems, current topics, primary

organizations and professions in modern natural resources management. Lectures, discussions and extensive field activities survey this diverse industry. Use career assessment and planning tools, such as educational portfolio development, to create a strategy for your professional future.

NATR 210 **5 credits**
Natural Resource Portfolio and Final Project

Completion of student professional portfolio and final project. The portfolio contains course projects, work and educational experiences completed while pursuing an AST degree or certificate. Final project will be completed by a team of students and will contain culminating activities that demonstrate acquisition of natural resource program student learning outcomes. Prerequisite: completion of one year's course work in the natural resource program.

NATR 235 **5 credits**
Society & Natural Resources

From personal to global levels, this course uses a systems approach to examine interaction of social, economic and ecological factors in natural resources management. Identify and explore the consequences of diverse natural resource philosophies and paradigms, and develop skills to direct, mitigate or change human impacts on natural systems. Prerequisite: ENGL& 101.

NATR 196/296 **1-5 credits**
Cooperative Work Experience

Intended to provide authentic experiences in the world of work by applying knowledge and skills learned in the classroom to a working environment. Variable credit class. Prerequisites: instructor's permission.

Nursing

NURS 100A **8 credits**
Nursing Assistant: Basic Patient Care

Introduction to the basic skills and knowledge required for competency as a caregiver in accordance to WAC 246-842-100 for nursing assistants. Includes instruction of personal-care skills, roles and responsibilities of nursing assistants, communication skills and safe and emergency procedures. Includes seven hours of HIV/AIDS training required by Washington state. Certificate of completion awarded upon successful completion of all components of the class.

NURS 101 **6 credits**
Foundations of Nursing Practice

This course is the introductory course which serves as the foundation for subsequent program courses. Cognitive, affective and psychomotor skills are introduced that enable the student to identify and begin to meet the basic needs of patients. NURS 101L is the clinical lab portion of the course. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 101L and PCOL 101.

NURS 101L **6 credits**
Nursing 101 Foundations of Nursing Practice Lab

This course provides introduction to and practice of nursing skills and concepts in the lab and clinical setting to gain proficiency for delivery of patient-centered care. This course will integrate concepts associated with the core themes of the nursing

program. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 101 and PCOL 101.

NURS 102 **6 credits**
Nursing Concepts I: NURS 102

This course introduces students to care of common, acute and chronic illnesses across the lifespan that affect various systems of the body. The normal aspects of maternal and pre-natal health and common risks and complications will be introduced. NURS 102L is the clinical/lab portion of the course. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 102L and PCOL 102.

NURS 102L **6 credits**
Nursing Concepts I Practice Lab

This course will enable students the learn and practice nursing skills and concepts in the lab and clinical setting to gain proficiency for delivery of safe, patient-centered care. Application of these concepts will be provided for in a variety of settings and students will be assigned to care for at least one patient. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 102 and PCOL 102.

NURS 103 **6 credits**
Nursing Concepts II: NURS 103

This course focuses on prioritizing patient-centered care for adults with common chronic health problems within more complex body systems, building upon concepts introduced in Nursing Concepts I. NURS 103L is the clinical/lab portion of the course. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 103L and PCOL 103.

NURS 103L **6 credits**
Nursing 103L Nursing Concepts II Practice Lab

This course focuses on the prioritization of patient-centered care for children and adults with common acute and chronic health problems. Clinical experiences with 1-2 patients each week coupled with simulation experiences will assist students in the development of evidenced based clinical decision-making skills to promote optimal patient outcomes. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 103 and PCOL 103.

NURS 104 **6 credits**
Nursing Concepts III: NURS 104

This course focuses on the medical-surgical management of patients with acute and chronic pathological processes throughout the lifespan and builds on Nursing Concepts I and II. Application of mental health; promotion, maintenance and restoration of health will be introduced. NURS 104L is the clinical/lab portion of the course. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 104L and PCOL 104.

NURS 104L **6 credits**
Nursing 104L Nursing Concepts III Practice Lab

This course is the clinical component for Nursing 104: Nursing Concepts III. Clinical experiences include applications of mental health concepts in the state hospital clinical site. Collaboration and delegation concepts are applied in the acute care or long-term care setting where students care for a minimum of 2 patients. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 104 and PCOL 104.

NURS 112 **2 credits**
Application of Nursing Concepts I

Designed for the beginning nursing student to define nursing process and apply it to basic patient care scenarios. Students will also learn to use knowledge of their personal learning style to assist with the acquisition of nursing knowledge. Prerequisites: concurrent enrollment in NURS 101/101L.

NURS 113 **1 credit**
Application of Nursing Concepts II

Will assist the student to integrate theory content and clinical practice by expanding the student's base of nursing knowledge. Prerequisites: concurrent enrollment in NURS 102/102L.

NURS 114 **1 credit**
Application of Nursing Concepts III

Will assist the student to think critically, demonstrate leadership, and collaborate with the healthcare team through patient care simulation scenarios. Prerequisites: concurrent enrollment in NURS 104/104L.

NURS 190 **6 credits**
LPN Transition

For Licensed Practical Nurses (LPN's) seeking to enter the second-year of the WVC nursing program. Focuses on relevant issues in the transition from the LPN to the RN role and identification of personal learning strategies that promote success in the nursing program and clinical proficiencies. Students who succeed in course will be allowed into second-year of the WVC nursing program. Pass/fail course. Prerequisites: Current licensure in Washington state as a Licensed Practical Nurse (LPN), in good standing. Permission of nursing director.

NURS 201 **6 credits**
Advanced Concepts I

This course focuses on management of patients with common acute and chronic pathological processes across the lifespan. This course will also introduce principles of nursing leadership and provide an opportunity for the student to explore the transition from student to LPN and to RN. NURS 201L is the clinical/lab portion of the course. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 201L.

NURS 201L **6 credits**
Advanced Nursing Concepts I Practice Lab

This course will utilize informational technology to collect and synthesize data when making safe and optimal clinical judgments. Clinical experience in acute care setting with 2-3 patients each week coupled with clinical simulation allows the student to apply concepts from previous courses. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 201.

NURS 202 **6 credits**
Advanced Nursing Concepts II

This course focuses on the collaborative management of patients with common acute and chronic pathological processes across the lifespan and builds upon Advanced Concepts I. This course will also introduce principles of Therapeutic Nutrition to be applied to patient care across the lifespan to promote optimal patient outcomes. NURS 202L is the clinical/lab portion of the course. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 202L.

NURS 202L **6 credits**
Advanced Nursing Concepts II Practice Lab

This course provides clinical experience in advanced medical surgical nursing. Application of these concepts will continue in both the simulation laboratory and the clinical setting which may include community health and acute care settings. Students will have the opportunity to participate in health teaching and learning activities. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 202.

NURS 203 **6 credits**
Advanced Concepts III

This course focuses on nursing management of patients with complex, multi-system acute and chronic processes throughout the lifespan. Students will use their knowledge of growth and development concepts to adapt care from birth to death. Health-care concepts in the community setting will be introduced. NURS 203L is the clinical/lab portion of the course. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 203L.

NURS 203L **6 credits**
Advanced Nursing Concepts III Practice Lab

This course focuses on nursing management of patients with complex, multi-system acute and chronic pathological processes throughout the lifespan. Students collaborate with the health-care team to provide compassionate care and facilitate optimal patient and organizational outcomes. Preceptor experiences are awarded in acute care, community health or long-term care. Prerequisites: acceptance into WVC Nursing Program; concurrent enrollment in NURS 203.

NURS 210 **1 credit**
Senior Seminar I

Employs patient-care scenarios to enhance the continued development of critical thinking. The critical thinking activities promote application of holistic concepts, health-care promotion and illness prevention. Course is organized around Orem's conceptual framework. Prerequisites: concurrent enrollment in NURS 201 and 201L.

NURS 214 **1 credit**
Senior Seminar II

The seminar prepares the student for entry level into the workforce. It explores issues affecting current nursing practice. Scenarios, role play, discussion and modeling of professionalism will be used. Prerequisites: concurrent enrollment in NURS 203.

Nutrition**NUTR&101** **5 credits**
Nutrition

An introduction to human nutrition with emphasis on metabolism, health, and the science of nutrition in the context of human form and function. Current issues in food safety and fad diets will be considered. (Formerly NUTR 101.)

Occupational Education**OCED 080** **1-5 credits**
Basic Literacy for Spanish speaking IBEST students

For Spanish-speaking students either in, preparing to enter or

have completed an I-BEST program of study but need to obtain a GED to obtain professional certification. The CONEVyT curriculum prepares students for the Spanish language GED. The curriculum is available both in Web-based and print formats. Prerequisites: admission to I-BEST program.

OCED 100 **1 credit**
Essentials for Job Success

A survey of practical skills in how to survive, thrive and be a success on the job. Topics include responsible work habits employers value, how to get along with co-workers and supervisors, critical thinking and problem solving in the workplace, knowing yourself, setting goals and getting ahead.

OCED 101 **5 credits**
Technical Reading

Introduces reading skills needed in the technical workplace with emphasis on strategies using context clues, word elements, identifying main ideas and supports, understanding and reading graphs, diagrams and charts and outlining. (formerly READ 100). Prerequisites: Appropriate assessment scores or at least a C (2.0) grade in English 097.

OCED 102 **5 credits**
Writing in the Workplace/Technical English

Introduces writing skills needed in the workplace with emphasis in technical writing. Practice specific skills as a single effort and a collaborative effort both in and out of class. (formerly ENGL 100). Prerequisites COMPASS placement into ENGL 097 or a minimum grade of "C" (2.0) in ENGL 090 as determined by placement testing. Keyboarding skills recommended.

OCED 130 **5 credits**
Industrial Safety

Course covers "Hazardous Material Awareness" and safety procedures in industrial facilities such as mills, smelters, power plants and packing facilities. First aid, CPR, forklift, OSHA-10, Hazmat and flagger certifications will be awarded to successful students. Proper fire extinguishing techniques, MSDS, Lock-out Tag-out procedures, chemical safety, PPE and accident reporting are embedded.

Oceanography

OCEA& 100 **5 credits**
Introduction to Oceanography

Investigation of the marine environment covering the geological, physical, chemical, biological and environmental processes which occur in the ocean. Topics include perspectives of oceanography, the intertidal zones, plate tectonics, islands, plankton and nekton, marine mammals, and pollution.

Pharmacology

PCOL 101 **1 credit**
Pharmacology in Nursing I

Explores pharmacodynamics, pharmacokinetics and pharmacotherapeutics of drugs. The nurse's legal role and scope of practice related to administration and monitoring of medications will be discussed. Considerations related to patient age, condition and route of administration will be presented. Safety concerns related to medication administration including

accurate dosage calculation and conversions. Prerequisite: concurrent enrollment in NURS 101 and NURS 101L.

PCOL 102 **1 credit**
Pharmacology in Nursing II

Using a body systems approach, this course continues to explore the pharmacodynamics, pharmacokinetics and pharmacotherapeutics of drugs. The nursing role in patient safety, documentation and patient education related to medication administration will be covered. Medications used to prevent or treat chronic illness will be discussed. Prerequisites: concurrent enrollment in NURS 102 and 102L.

PCOL 103 **1 credit**
Pharmacology in Nursing III

Using a body systems approach, this course continues to explore the pharmacodynamics, pharmacokinetics and pharmacotherapeutics of drugs. Drugs used to treat chronic health problems, infections, and use of the intravenous route for administration will be highlighted. Safety concerns related to medication administration including dosage calculations will be presented. Prerequisites: concurrent enrollment in NURS 103, 103P, 103N, and 103L.

PCOL 104 **1 credit**
Pharmacology in Nursing IV

Builds on the foundation from PCOL 101, PCOL 102 and PCOL 103. Administering medications safely via the intravenous route and evidence-based best practice will be addressed. The nurse's responsibility in IV drug administration, complications and potential drug interactions will be discussed. Prerequisites: concurrent enrollment in NURS 104 and 104L.

Philosophy

PHIL& 101 **5 credits**
Introduction to Philosophy

Introduction to the various branches of philosophy, including metaphysics, the theory of knowledge and ethics. Major philosophers from the Greek, Roman, North African, European and American experiences are studied.

PHIL& 115 **5 credits**
Critical Thinking

A non-symbolic approach to logic and critical thinking focusing on the principles of reasoning and the criteria for validity. Case studies in government, health, education and business, with an emphasis on real-life examples. Principles of argumentation in discourse as seen through the critique of sample arguments and analysis of informal fallacies.

PHIL& 120 **5 credits**
Symbolic Logic

Introduces students to the structure and evaluation of deductive arguments. The core of this course is sentence logic with proofs and predicate logic with quantifiers and proofs. Will learn to translate natural language into symbolic notation and test for validity using natural deduction. Prerequisites: MATH 099 with a grade of "C" (2.0) or better or appropriate placement score.

PHIL 210 **5 credits**
Philosophy of Religion

Philosophical examination of religion, especially of the theistic worldview. Topics include the nature and knowledge of God, faith

and reason, religious knowledge, life after death, miracles, and the problem of evil.

PHIL 211 **5 credits**
Introduction to Ethics

Survey of the ethical perspectives of various philosophers in the context of current ethical issues. How our ideas about freedom, responsibility and values have an impact on ethical and moral decisions. Students are encouraged to develop their own ethical thinking.

PHIL 265 **5 credits**
Biomedical Ethics

Introduction to medical bioethics with a focus on clinical decisions. Learn to use the Four Box Method of Jonsen et al. to characterize the ethical content of a variety of clinical situations and collaborate to arrive at ethically defensible courses of action. Explores ways which contextual realities may constrain clinical ethical decision-making. Prerequisites: ENGL&101.

PHIL 275 **5 credits**
Comparative World Religions

Survey of major world religions, focusing on the Egyptian, Hebrew, Indian, Japanese and Chinese religions. Other religions are considered as time permits.

Physical Education - Activity Courses

PEH 101 **1 credit**
Total Conditioning: Zumba/Body Blast

Coed, comprehensive aerobic conditioning and body toning routines to music designed to increase muscle tone, flexibility, strength and the cardio respiratory system through the use of interval workouts. Nutrition and diet programs addressed. Prescriptive and descriptive fitness testing administered. Prerequisites: doctor's permission or physical within last year recommended for students age 40 and older.

PEH 102 **2 credits**
Total Conditioning: Zumba/Body Blast

Coed, comprehensive aerobic conditioning and body toning routines to music designed to increase muscle tone, flexibility, strength and the cardio respiratory system through the use of interval workouts. Nutrition and diet programs addressed. Prescriptive and descriptive fitness testing administered. Prerequisites: doctor's permission or physical within last year recommended for students age 40 and older.

PEH 103 **1 credit**
Body Conditioning: Weight Training

Focuses on two areas: basic weight training for learning the proper techniques and safety, and power weight training for students to continue a regular lifting program. Provides an opportunity for rehabilitation of injuries. Prerequisite: orientation.

PEH 104 **2 credits**
Body Conditioning: Weight Training

Focuses on two areas: basic weight training for learning the proper techniques and safety, and power weight training for students to continue regular lifting programs. Provides an opportunity for rehabilitation of injuries. Prerequisites: orientation.

PEH 112 **1 credit**
Functional Movement Training for the Athlete

Designed as an off-season functional conditioning class for WVC athletes. Course focus will be dictated by the demands of the individual sports.

PEH 113 **2 credits**
Functional Movement Training for the Athlete

Designed as an off-season functional conditioning class for WVC athletes. Course focus will be dictated by the demands of the individual sports.

PEH 114 **1 credit**
Bowling

Basic skills and techniques to help provide enjoyment and satisfaction, whether participating on a recreational or more competitive level.

PEH 115 **1 credit**
Court Sports

Lifetime skills offering a composite of the following court sports activities: tennis (fall and spring), basketball, volleyball, racquetball and walleyball. Introduction of basic skills for all these court sports. Develops lifetime skills that can be used for recreational activities.

PEH 116 **2 credits**
Court Sports

Lifetime skills offering a composite of the following court sports activities: tennis (fall and spring), basketball, volleyball, racquetball and walleyball. Introduction of basic skills for all these court sports. Develops lifetime skills that can be used for recreational activities.

PEH 118 **1 credit**
Beginning Karate

A comprehensive introductory course on traditional Okinawan karate. Designed with diversified subject matter including physical fitness, self-defense and traditional karate emphasizing the mental awareness, history and philosophy of karate-do.

PEH 119 **1 credit**
Tai Chi

A low-impact exercise based on the slow, fluid movement of tai chi and the breathing exercises of chi kung. Tai chi is an internal martial art based on Chinese philosophy and medicine. A simple, effective program for relaxation and stress reduction through greater mind-body awareness.

PEH 120 **1 credit**
Beginning Fencing

Designed to introduce the basic skills of fencing. Learn footwork, offensive and defensive moves to be utilized in fencing bouts.

PEH 121 **1 credit**
Pilates

Designed for students of all fitness levels. Gain balance, flexibility, strength, endurance and core stability through a series of Pilates movements. Learn relaxation methods through breathing techniques in a calming and energizing atmosphere.

PEH 122 **1 credit**
Yoga

Designed for students of all fitness levels. Gain balance, flexibility, strength, endurance and stability through a series of poses or asanas. Learn relaxation methods through breathing techniques

in a calming and energizing atmosphere.

PEH 123 **2 credits**
Yoga/Pilates

A unique blend of yoga and Pilates designed for students of all fitness levels. Gain balance, flexibility, strength, endurance and core stability through a series of poses and Pilates movements. Learn relaxation methods through breathing techniques in a calming and energizing atmosphere.

PEH 124 **1 credit**
Intermediate Yoga

Students will refine and deepen their knowledge of yoga poses and alignment. Students will master challenging poses for balance, strength and stability, as well as learning basic arm balances and inversions. This class is contraindicated for those with serious back injury, inability to maintain challenging workouts, and those who are pregnant. Prerequisites: PEH 122.

PEH 125 **1 credit**
Golf

Basic skills, knowledge and techniques of golf. Introduces and prepares beginning golfers for a lifetime sport.

PEH 126 **1 credit**
Beginning Racquetball

Principle facets of racquetball. Basic foundations of stroke technique and rules interpretation, including game and tournament strategy as well as court safety. Prerequisites: complete physical exam or doctor's permission for students age 40 and older.

PEH 142 **1 credit**
Cross-Training

Designed for the student that wants to have a challenging and high intensity strengthening program. Emphasis will be on proper fundamentals of lifting with weights, TRX bands and the student's own body weight. Prescriptive and descriptive programs designed for the student after pre-assessment of student's fitness level.

PEH 143 **2 credits**
Cross-Training

Designed for the student that wants to have a challenging and high intensity strengthening program. Emphasis will be on proper fundamentals of lifting with weights, TRX bands and the student's own body weight. Prescriptive and descriptive programs designed for the student after pre-assessment of the student's fitness level.

PEH 144 **1 credit**
Cross-Country Skiing

Basic to intermediate-level cross-country ski instruction in a weekend format. Skiing techniques for flats, hills, downhill and backcountry will be covered. Techniques such as diagonal stride, skating, uphill running, turning and stopping are incorporated into the session with an emphasis on safety.

PEH 150 **1 credit**
Beginning Tennis

Fundamental skills of the game, the rules of play and accepted course etiquette.

PEH 155 **1 credit**
Beginning Volleyball

Designed to teach the basic fundamental skills, strategies and rules of the game.

PEH 161 **1 credit**
Fitness Lab

Designed to introduce the concept of fitness and wellness, and to accommodate every level of fitness and age group. The Super Circuit is a fitness and cardiovascular-oriented program. Personalized strength, flexibility and fitness programs are available. Prerequisites: orientation. Doctor's permission or physical within last year recommended for students age 40 or older.

PEH 162 **2 credits**
Fitness Lab

Designed to introduce the concept of fitness and wellness, and to accommodate every level of fitness and age group. The Super Circuit is a fitness and cardiovascular-oriented program. Personalized strength, flexibility and fitness programs are available. Prerequisites: orientation. Doctor's permission or physical within last year recommended for students age 40 or older.

PEH 218 **1 credit**
Intermediate Karate

Learn to teach effective self-defense techniques to intermediate students. Other benefits of karate training, such as flexibility, coordination, self-confidence and physical fitness are secondary to learning good self-defense. Prerequisite: one quarter of PEH 118 or instructor's signature.

PEH 219 **1 credit**
Intermediate Tai Chi

A low-impact exercise based on the slow, fluid movement of tai chi and the breathing exercises of chi kung. Tai chi is an internal martial art based on Chinese philosophy and medicine. A simple, effective program for relaxation and stress reduction through greater mind-body awareness.

PEH 220 **1 credit**
Advanced Fencing

Designed to cover the principles of fencing for advanced students. Learn footwork, offensive and defensive moves to be used in fencing bouts. Prerequisite: PEH 120 or instructor's signature.

PEH 226 **2 credits**
Advanced Racquetball

Principles of racquetball for advanced players. Detailed information on stroke techniques, rules interpretation, including game and tournament strategy, as well as court safety. Aerobic value will be derived by participation and a lifetime sport activity will be the end result. Prerequisites: complete physical exam or doctor's permission for students age 40 and older. PEH 126 or instructor's signature.

PEH 261 **1 credit**
Fitness Lab

Designed to introduce the concept of fitness and wellness, and to accommodate every level of fitness and age group. The Super Circuit is a fitness and cardiovascular-oriented program. Personalized strength, flexibility and fitness programs are available. Prerequisites: orientation. Doctor's permission or physical within last year recommended for students age 40 or older.

PEH 262 **2 credits**
Fitness Lab

Designed to introduce the concept of fitness and wellness, and to accommodate every level of fitness and age group. The Super Circuit is a fitness and cardiovascular-oriented program. Personalized strength, flexibility and fitness programs are available. Prerequisites: orientation. Doctor's permission or physical within last year recommended for students age 40 or older.

Physical Education - Lecture Courses**PEH 180** **3 credits**
Personal Wellness

Creating a lifestyle that promotes personal health and well-being. Includes wellness concepts and theory with special emphasis on stress management and relaxation training, nutrition and fitness, addictive behaviors, human sexuality, and the ability to analyze the validity of health news and information sources.

PEH 181 **5 credits**
Health and Wellness

Online course emphasizing the relationship between course content and lifestyle choices. Includes physical fitness, nutrition, weight management, stress and emotional health, chemical use and abuse, communicable and noncommunicable disease, health-smart consumerism, the health-care system, aging, death and dying, and environmental health issues.

PEH 182 **5 credits**
1st Aid-Responding to Emergencies

Covers advanced first aid and emergency care procedures, including American Red Cross requirements for certification cards. Lecture and hands-on training including CPR/AED, splinting, bandaging and dealing with sudden illness or injury to the body. Includes Basic Life Support for Health-Care Providers.

PEH 189 **1 credit**
Athletic Training Practicum I

Provide a practical application of athletic training knowledge and skills in the training room setting. Students will assist the ATC in serving the student athletes for WVC men's and women's athletic teams. PEH 189 is intended for the first-year student athletic trainer. This course can be repeated for credit for working different sports seasons. Prerequisites: PEH 287, or high school sports medicine experience (instructor signature needed for HS option).

PEH 283 **3 credits**
Sports Nutrition

Define the basic nutritional needs of the human body and how to achieve them for optimum health. Nutrition considerations for sports and exercise will be examined in depth.

PEH 284 **3 credits**
Foundations of Fitness

Introduces the essential principles of fitness and exercise and is intended to be one of the first steps in the preparation of individuals as fitness professionals. Provides the fundamental theories, applications and personal experiences necessary for a comprehensive understanding of fitness as a profession and as a lifestyle.

PEH 285 **3 credits**
Introduction to Physical Education & Sport

Designed to provide an introduction to physical education as

a profession. This course serves as an introduction to all fields of physical education including teaching, coaching, sports and fitness management, athletic training/sports medicine, and various others.

PEH 286 **5 credits**
Exercise Physiology

Investigates the relationship between physical activity and physiological processes. Emphasis will be placed on the body's adaptation to strength training, cardiovascular endurance and neurological adaptations.

PEH 287 **5 credits**
Athletic Training

An introductory course to the field of athletic training. Will introduce prevention and care of athletic injuries and illnesses. Emphasis is placed on managing and preventing injuries common to an active lifestyle, including acute and overuse injuries.

PEH 288 **5 credits**
Anatomical Kinesiology

Study of the musculoskeletal structure of the living human body, bones and their articulation, segments and their movements, muscles and their attachments and actions, and systemic nerves and their innervations and function. Special emphasis is placed on musculoskeletal analysis of basic exercises and movement patterns.

PEH 289 **2 credits**
Athletic Training Practicum II

Provide a practical application of athletic training knowledge and skills in the training room setting. Students will assist the ATC in serving the student athletic athletes for WVC men's and women's athletic teams. PEH 289 is intended for the advanced student athletic trainer. This course can be repeated for credit for working different sports seasons. Prerequisites: PEH 287 and instructor's signature only.

Physical Education – Recreation**PEHR 105** **2 credits**
Hiking in North Central Washington

Introduction to the basics of hiking in North Central Washington to students of all fitness levels. Addresses decision making skills, trip planning, first aid, safety, navigation and environmental concerns. Includes required day hiking trips in order to apply learned skills in a real-time environment.

PEHR 106 **2 credits**
Alpine Ski & Snowboard

Introduces the fundamentals of alpine skiing and snowboarding. Addressing risk-management, teaching techniques and mountain etiquette, students will gain confidence & competence in the lifetime sports of alpine ski & snowboard. The course is a combination of in-class sessions and six on-snow sessions at Mission Ridge Ski Resort. Prerequisites: Orientation; doctor's permission or physical within last year recommended for students age 40 and older and/or students with any health or physical concern.

PEHR 107 **2 credits**
Columbia River Rowing

Introduction to the basics of rowing for students of all fitness levels. Addresses rowing technique, rowing terminology, safety

guidelines, and rowing etiquette. The course includes required rowing outings in order to apply learned skills in a real-time environment.

PEHR 190 **5 credits**
Winter Fitness, Safety and Recreation

Designed to introduce lifetime winter recreation opportunities in NCW. Introduction to winter fitness, survival, orienteering in snowy terrain and avalanche awareness. Winter activities include snowshoeing, telemark and randonee skiing, snowboarding and downhill skiing, and cross country skiing (classic, skating and backcountry). Students are responsible for their own equipment. Prerequisites: orientation; doctor's permission or physical within last year recommended for students age 40 and older.

PEHR 191 **5 credits**
Spring Fitness, Safety and Recreation

Designed to introduce lifetime spring recreation opportunities in NCW. Introduction to spring fitness, survival, safety, safe use and maintenance of equipment and orienteering in terrestrial environments. Spring activities include: mountain biking, bike touring, spring hiking, backpacking, beginning climbing, and plant and animal community appreciation. Students responsible for their own equipment. Prerequisites: orientation; doctor's permission or physical within last year recommended for students age 40 and older.

PEHR 192 **5 credits**
Summer Fitness, Safety, Recreation

Introduction to lifetime summer recreation opportunities in NCW. Includes summer fitness, safety, navigation, and safe use and maintenance of equipment in kayaking and backpacking. The kayaking module will culminate with two full days of local kayaking while the backpacking module will culminate with a 5-day backpacking trip. Prerequisites: Orientation; doctor's permission or physical within last year recommended for students age 40 and older.

PEHR 193 **5 credits**
Fall Fitness, Safety and Recreation

Designed to introduce lifetime fall recreation opportunities in NCW. Introduction to fall fitness, survival, safety, safe use and maintenance of equipment and orienteering in aquatic and terrestrial environments. Fall activities include: sailing, mountain biking, bike touring, fall hiking, backpacking, beginning climbing, and plant and animal community appreciation. Students responsible for their own equipment. Prerequisites: orientation; doctor's permission or physical within last year recommended for students age 40 and older.

PEHR 194 **3 credits**
Intro to River Stewardship & Whitewater Safety

Develops whitewater guiding skills and competencies through hands-on experience on the river and in the classroom. The skill and competencies include outdoor leadership, naturalist training, risk management, reading whitewater and maneuvering paddle rafts. This course includes four arranged weekend trips during the quarter.

PEHR 195 **5 credits**
River Stewardship & Whitewater Safety

Develops whitewater guiding skills and competencies through hands-on experience on the river and in the classroom. The skill and competencies include trip leadership, risk management,

reading whitewater, maneuvering rafts, swift water rescue and outfitting. This course will begin with a multi-day river trip during WVC Spring Break.

PEHR 250 **3 credits**
Recreation Portfolio and Final Project

Completion of student professional portfolio and final project. The portfolio contains course projects, work and educational experiences completed while pursuing an AAS-T degree or certificate. Final project will be completed by a team of students and will contain culminating activities that demonstrate acquisition of recreation program student learning outcomes. Prerequisites: completion of one year's course work in the WVC Outdoor Recreation Management Program.

Physics

PHYS& 100 **5 credits**
Physics for Non-Science Majors

Physics for nonscience majors. Study of the basic fundamentals of physics, including mechanics, heat, light, sound, electricity, magnetism and modern physics.

PHYS& 114 **5 credits**
General Physics I w/lab

Study of the fundamental principles and applications of mechanics, including vectors, static equilibrium, linear and rotational motion, Newton's laws, work, energy, and momentum. Includes laboratory. Prerequisites: MATH 099, or equivalent, or instructor's signature.

PHYS& 115 **5 credits**
General Physics II w/Lab

Study of the basic principles and applications of fluids, harmonic motion and waves, thermodynamics, and geometric optics. Includes laboratory. Prerequisites: MATH 099, or equivalent, or instructor's signature.

PHYS& 116 **5 credits**
General Physics III w/Lab

Study of the basic principles and applications of electricity and magnetism and an introduction to modern physics. Includes laboratory. Prerequisites: MATH 099, or equivalent, or instructor's signature. Formerly PHYS& 123.

PHYS& 221 **5 credits**
Engineering Physics I

The study of kinematics, statics, rotational motion and collisions. Topics include one- and two-dimensional motion for point masses and rigid bodies, conservation laws for momentum and energy, and equilibrium conditions. Laboratory included. Prerequisites: one year high school physics, MATH& 151 or concurrent enrollment.

PHYS& 222 **5 credits**
Engineering Physics II

The study of simple harmonic motion, waves, temperature and heat. Topics include the Ideal Gas Laws, the Laws of Thermodynamics, and thermodynamic systems. Electrostatics through Gauss' law covered. Laboratory included. Prerequisites: one year high school physics, PHYS& 221, MATH& 152 or concurrent enrollment.

PHYS& 223 **5 credits**
Engineering Physics III

The study of electrical and magnetic phenomena, starting with electric potential and continuing on into optics and quantum mechanics. Topics include electrostatics, magnetostatics, DC and AC circuit theory, and geometric ray optics. Laboratory included. Prerequisites: one year high school physics, PHYS& 222, MATH& 153 or concurrent enrollment.

Political Science**POLS& 101** **5 credits**
Introduction to Political Science

Theory, principles, organization, and functions of political Institutions, such as legislatives, executives, and judiciaries will be examined. The comparative approach to democratic and non-democratic systems and their institutions (Executive, Legislative, and Judicial) will be utilized extensively. Emphasis on political cultures and national characters such as classical conservatism and liberalism, fascism, totalitarianism, authoritarianism, and religions, etc.

POLS& 202 **5 credits**
American Government

Focus is given to the system, process, and organizational functions of the American government. It also puts primary attention on the relationships between citizens and their national government by exploring the key theoretical precepts that shaped the Constitution and its federal structural arrangements. Close attention is paid to the policy making process and its key actors, as well as various public policies.

POLS& 203 **5 credits**
International Relations

The interactions among the various actors that participate in international politics, including individuals, states, international organizations, nongovernmental organizations and sub-national entities, will be closely examined. Key political theories used as guides by decision makers in international relations such as Realism, Liberalism, Constructivism, among others will be discussed and debated.

POLS 206 **5 credits**
State and Local Government

Close examination of people and institutions that shape policies as well as their outcomes in state and local communities. Local and state politics will be discussed and contextualized within the federal distribution of powers delineated by Constitution of the United States.

Psychology**PSYC& 100** **5 credits**
General Psychology

Offers an overview of psychology as a scientific study. Theories and research findings concerning many major branches of psychology will be examined. Application of psychology concepts to school, family, work and other life settings will be taught and discussed. Critical thinking about psychology concepts will be emphasized. Prerequisites: college-level reading, writing and study skills.

PSYC 102 **5 credits**
Psychology of Adjustment

A study of psychological adjustment, personal growth and personality. These factors are examined from various psychological orientations with applications and insight into one's own life, relationships and environmental situations. This course is not to be used in place of formal counseling. This course will not serve as a prerequisite for more advanced psychology courses.

PSYC& 200 **5 credits**
Lifespan Psychology

An examination of the developmental changes occurring throughout the entire life span from conception to death. Particularly emphasized are physical, emotional, cognitive, moral and social development, and application of theories and knowledge to real world applications. Various theories of development will be examined. Prerequisites: PSYC& 100.

PSYC 205 **5 credits**
Human Sexuality

This course examines human sexuality from the psychological, biological, sociocultural and historical perspectives. Students will be encouraged to become aware of their own sexual attitudes, values and behaviors. By the end of the course, students will be able to communicate about sexuality with a greater degree of effectiveness. Prerequisites: college-level reading and study skills, PSYC& 100.

PSYC 215 **5 credits**
Psychology of Sport

Examines the major psychology theories related to sport. A broad overview of topics including the history of sports psychology, personality and motivation, leadership, gender and cultural issues, team dynamics and psychological skills training will be covered. Current topics and issues relevant to sport psychology will be explored.

PSYC& 220 **5 credits**
Abnormal Psychology

Introduction to psychopathology and abnormal behavior. Theories, major diagnostic categories, issues and ethics in diagnosis and treatment will be emphasized. Cultural influences and access to resources are also discussed. Prerequisites: PSYC&100.

PSYC 245 **5 credits**
Social Psychology

A theoretical and practical study of social psychology including social cognition, social influence and social relations. Small groups, mass media, advertising, propaganda, the role of nature and nurture, cognition, discrimination/prejudice, persuasion, conformity, obedience, aggression, and attraction are among the topics considered. Small-group experiences included. Prerequisites: PSYC&100.

Radiologic Technology**RADT 101** **2 credits**
Introduction to Radiologic Technology

An orientation to the WVC Radiologic Technology program, history of historical events in radiology, the radiographer's role in the health care team, organization of the radiology department

and hospital, elements of ethical behavior and medicolegal considerations, professional organizations and regulatory agencies. Prerequisites: enrollment in the radiologic technology program or RADT program director permission.

RADT 105 **1 credit**
RADT Success I

Supplemental laboratory practice designed to reinforce theoretical principles and integrate hands on practice and radiologic technology knowledge. Skills are developed to improve performance and gain the competency required for entry into the clinical experience phase of the radiologic technology program. Prerequisites: enrollment in the RADT program.

RADT 106 **1 credit**
RADT Success II

Supplemental laboratory practice designed to reinforce theoretical principles and integrate hands-on practice and radiologic technology knowledge. Skills are developed to improve performance and gain the competency required for entry into the clinical experience phase of the radiologic technology program. Prerequisites: enrollment in the RADT program.

RADT 107 **1 credit**
RADT Success III

Supplemental laboratory practice designed to reinforce theoretical principles and integrate hands-on practice and radiologic technology knowledge. Skills are developed to improve performance and gain the competency required for entry into the clinical experience phase of the radiologic technology program. Prerequisites: enrollment in the RADT program.

RADT 111 **5 credits**
Radiation Physics

An overview to the application of radiation physics; to include basic atomic structure, the nature of radiation, x-ray production and interaction of x-ray photons with matter. An introduction to mathematics for radiology, radiation quantities and units of measure, imaging equipment: x-ray circuitry, generators and x-ray tubes. Prerequisites: enrollment in the radiologic technology program.

RADT 121 **3 credits**
Principles of Exposure I

An introduction to the basics of radiation protection and an orientation to radiographic equipment, laboratory and facility safety. A detailed analysis of principles related to radiographic image formation and acquisition. Image evaluation and laboratory experiments reinforce theoretical principles. Prerequisites: enrollment in the RADT program.

RADT 122 **3 credits**
Principles of Exposure II

A continuation of RADT 121 and analysis of digital imaging principles, PACS, image critique methods, density/brightness, contrast, detail and distortion. An overview of the quality assurance, quality control and maintenance issues related to the equipment. Image evaluation and laboratory exercises reinforce theoretical principles. Prerequisites: RADT 111, 121.

RADT 123 **2 credits**
Principles of Exposure III

A continuation of RADT 122 and analysis of permanent radiographic equipment, AEC, fluoroscopy, mobile equipment and systems of technique formation. Continued discussion of

the quality management process, quality control and associated government and accreditation standards. Image evaluation and laboratory exercises reinforce theoretical principles presented in lecture. Prerequisites: RADT 122.

RADT 131 **4 credits**
Radiographic Positioning I

An introduction to positioning terminology and the fundamental theory, principles and practices regarding radiographic examinations of the upper and lower extremities and shoulder girdle. Experience is gained via positioning lecture and in the energized lab. Practical competency assessments reinforce principles learned in lecture. Prerequisites: enrollment in the RADT program.

RADT 132 **4 credits**
Radiographic Positioning II

A continuation of RADT 131: to include radiographic examinations of the hip, pelvis and spine. Experience is gained in the energized lab and practical competency assessments reinforce principles learned in lecture. Prerequisites: RADT 131.

RADT 133 **4 credits**
Radiographic Positioning III

A continuation of RADT 132: to include radiographic and/or fluoroscopic examinations of the chest, bony thorax, skull, sinus, facial bones, abdomen, urinary and digestive system. Experience is gained in the energized lab and practical competency assessments reinforce principles learned in lecture. Prerequisites: RADT 132.

RADT 134 **4 credits**
Radiographic Positioning IV

A continuation of RADT 133: image critique and introduction to clinical handbook. Introduction to special views of the upper and lower extremities, spine, pelvis, chest, bony thorax, cranium, abdomen, situations of trauma, mobile, pediatric and geriatric populations. Experience is gained in the energized laboratory; competency assessments reinforce principles learned. Prerequisites: RADT 133.

RADT 141 **2 credits**
Radiation Biology and Protection

An overview of principles of the interaction of radiation with living systems, radiation effects on living systems and factors affecting biologic response; responsibilities of the radiographer regarding principles of radiation protection for the radiographer, patient and public; radiation health and safety recommendations and requirements of federal and state agencies. Prerequisites: RADT 111 and 121.

RADT 151 **1 credit**
Imaging Modalities

A basic overview of the advanced imaging areas to include, but not limited to, vascular/cardiac/interventional radiography, computed tomography, nuclear medicine, magnetic resonance imaging, ultrasonography, mammography, bone densitometry and radiation therapy. Prerequisites: RADT 111 and 121.

RADT 152 **3 credits**
Patient Care

Basic concepts and procedures of patient care, including consideration for the cultural, physical and psychological needs of various patient ages, and their families. Routine and emergency patient care procedures and application of Standard Precautions.

SOC 151 **5 credits**
Sociology of Race and Ethnic Groups

A historical overview of minority and ethnic relations with an examination of topics and theories related to the diversity of selected groups and intergroup relations. Topics include prejudice and discrimination, dominant/minority relations, and majority and minority groups in American society. Prerequisites: SOC& 101 is recommended.

SOC& 201 **5 credits**
Social Problems

Investigates social problems of today from a sociological perspective. The course examines important issues of the economy, drug abuse, crime, inequality, family, education, race and ethnic relations, environment, and war and terrorism. The course is structured to promote the critical thinking and problem-solving skills of students by using the sociological imagination.

SOC 203 **5 credits**
Sociology of Sport

An examination of the relationship between sport and society from a historical and sociological perspective. Emphasis will be given to sport as an economic enterprise, the relationship between sport and society's institutions, high school and college sports, and the issues of social class, race, gender, and violence in sports.

SOC 225 **5 credits**
Sociology of Family

A comprehensive examination of marriage and family life, including past, current and future trends. The course will help students understand different family patterns and skills for meaningful, long-term, intimate relationships, and is structured to promote the critical thinking and problem solving skills of students by using the sociological perspective. Prerequisites: SOC& 101 is recommended.

Spanish**SPAN& 121** **5 credits**
Spanish I

Elementary grammar, writing and comprehension of the Spanish language. Instruction partly in Spanish. Background in English grammatical terminology is recommended.

SPAN& 122 **5 credits**
Spanish II

Continuation of Spanish I. Elementary grammar, writing and comprehension of the Spanish language. Instruction increasingly in Spanish. Background in English grammatical terminology is recommended. Prerequisite: SPAN& 121.

SPAN&123 **5 credits**
Spanish III

Continuation of Spanish II. Elementary grammar, writing and comprehension of the Spanish language. Instruction mostly in Spanish. Background in English grammatical terminology is recommended. Prerequisites: SPAN& 122 or equivalent.

SPAN 124 **5 credits**
Spanish III for Native Speakers

Provides bilingual students with the skills necessary to succeed in upper-division Spanish classes. Intensive review of grammar,

readings of literary and journalistic texts, writing review, vocabulary expansion and oral presentations to enhance verbal skills. Prerequisites: to be a native speaker.

SPAN& 221 **5 credits**
Spanish IV

Study of grammar, writing, comprehension, and Hispanic culture and literature. Instruction in Spanish. Prerequisite: SPAN& 123, or equivalent.

SPAN& 222 **5 credits**
Spanish V

Continuation of Spanish IV. Study of grammar, writing, comprehension, and Hispanic culture and literature. Instruction in Spanish. Prerequisite: SPAN& 221, or equivalent.

SPAN& 223 **5 credits**
Spanish VI

Continuation of Spanish V. Study of grammar, writing, comprehension, and Hispanic culture and literature. Instruction in Spanish. Prerequisite: SPAN& 222, or equivalent.

Student Development Skills**SDS 101** **5 credits**
Study Skills

Course covers college-level study skills, including time management, goal setting, classroom etiquette, learning styles, math study skills, note-taking, textbook reading and comprehension, exam preparation and test taking, basic research skills, and basic presentation skills. Prerequisites: Compass score writing placement in ENGL 090 or above.

SDS 102 **1 credit**
Online Readiness

Introductory online course with emphasis on technical preparation, navigation, communication in online environment, and how online learning differs from face-to face instruction. Students learn how online courses work, acquire personal preparation for successful learning online, and identify when and how online learning is best incorporated into their educational activities.

SDS 103 **3 credits**
Study Skills for Mathematics

An intensive course in basic math principles and math-specific study skills to improve student performance in developmental math. Prerequisites: concurrent enrollment in MATH 090, MATH 093, MATH 098, MATH 099, or instructor's signature.

SDS 104 **3 credits**
Stress Management

Understanding of the nature of stress, principles of stress management and strategies for "creating, rejuvenating, and sustaining" a healthy, balanced life style. Through lecture and experiential learning, learn to reduce anxiety around tests, homework, relationships and more. Prerequisite: ENGL 097.

SDS 105 **3 credits**
Effective Leadership

Designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. Integrates readings from the humanities, experiential exercises, films and contemporary

readings on leadership. Prerequisite: appropriate placement score. College-level reading and writing skills recommended.

SDS 106 **3 credits**
Career and Life Planning

An opportunity to explore career options that best fit with student's personality, interests, abilities and values. Emphasis is on personal assessment. Prerequisite: placement in English 097 strongly advised.

SDS 107 **1 credit**
College Navigation Skills 1

Introduces techniques, strategies and information fundamental for students to navigate in the college environment. Includes content in goal setting, critical thinking, decision making and problem solving, time management and stress management. Prerequisites: may require instructor's signature.

SDS 108 **1 credit**
College Navigation Skills 2

Introduces student development techniques, strategies and information fundamental for students to navigate in the college environment. Includes content in financial decision-making strategies, creating a financial plan for higher education, college paper writing requirements, understanding self-awareness and motivation as tools for college success. Prerequisites: may require instructor's signature.

SDS 109 **1 credit**
College Navigation Skills 3

Introduces career development techniques, strategies and information fundamental to prepare students to be successful in a professional environment. Includes content in resume writing, interview tips, career exploration, securing internships and the creation of an individualized portfolio. Prerequisites: may require instructor's signature.

SDS 110 **2 credits**
Critical Thinking

Learning styles, holistic thinking, logic and problem solving will help students develop new thinking strategies and patterns. Prerequisites: placement in ENGL 097 strongly recommended.

SDS 115 **2 credits**
Study Skills for English

An intensive course in grammar and study skills to prepare students to succeed in English courses. Prerequisites: concurrent enrollment in ENGL 097.

SDS 207 **1 credit**
CAMP College Navigation IV

Techniques, strategies and information fundamental to successfully transfer to a four-year institution. Students will also explore majors/programs and career opportunities.

Theater

THTR 165 **5 credits**
Acting I

Fundamentals of stage acting, employing practical exercises, games and performance activities. How to analyze, interpret and present a theatrical character to an audience. Voice, movement and concentration will be stressed, as well as basic stage terminology.

THTR 170 **5 credits**
Theater Production & Administration

Comprehensive basic course covering the elements of theater production and administration: stage types/rigging, lighting/sound, costumes, sets, makeup, theater management, box office, ticketing, and publicity. Concepts and techniques of stage craft and stage administration apply knowledge by working with a production team in a professional performing arts setting.

THTR 265 **5 credits**
Acting II

Focuses on advanced acting techniques and in-depth character/play analysis as well as more complex scene work. Projects related to play directing and production will be assigned. Prerequisites: THTR 165 or instructor's signature.

Tribal Gaming Management

TGM 150 **3 credits**
Tribal Law

Examines the roles of the tribal government and provides a broad overview of tribal law issues, including an understanding of tribal governments, tribal constitutions and codes, treaties, tribal court systems, and tribal gaming law.

TGM 160 **3 credits**
Jurisdiction Issues

Provides a broad overview of tribal jurisdiction issues, including an understanding of criminal and civil jurisdiction, particularly as applied to tribal gaming law.

Welding

WELD 128 **3 credits**
Basic Welding

Theory, application and practice of arc and oxyacetylene welding and cutting.

WELD 131 **3 credits**
Gas Welding

Fundamentals and experience in the operation of oxyacetylene welders and cutters in flat, horizontal, vertical and overhead positions, and an introduction to aluminum and stainless steel welding and brazing using TIG welding machines.

WELD 132 **3 credits**
Arc Welding

Fundamentals and experience in operation of AC and DC welders in flat, horizontal, vertical and overhead positions using a variety of welding electrodes, including low-hydrogen rods. Introduction to MIG (Metallic Inert Gas) or GMAW (Gas Metal Arc Welding) included.

WELD 134 **3 credits**
Intermediate GTAW (TIG)

Introduces the experienced welder or student to GTAW techniques and machine set-up. The student will learn the proper way to adjust a machine for joining many types of metals ferrous and non-ferrous. Skill level will be improved and experience will be gained through several repetitive exercises. Prerequisites: WELD 128 or WELD 131 or WELD 132 or professional welding experience.

WELD 220 **2 credits**
Welding Certification Prep Course

Prepares experienced welders for welding examination and certification. Involves out of position welding with electric arc 6010 and 7018 electrodes, "flux core" welding wire, and GMAW (MIG) Welders (required during welding certification). Prerequisites: WELD 128 or industry experience.

WELD 223 **3 credits**
Pipe Welding

Techniques for welding pipe and preparing for WABO certification. SMAW (Stick) and GMAC (MIG) methods are used. Students will weld in all positions, prep and fit at various angles. Prerequisites: WELD 128 or WELD 131 or WELD 132 or appropriate industry experience.

WELD 225 **2 credits**
Welding Blueprint Reading

Provides basic knowledge and skill in reading typical blueprints used by welding professionals. Special attention devoted to the symbols used in this industry. Course includes drawing and drawing interpretation.

WELD 227 **3 credits**
Welding Exotic Metals

Course in welding styles such as GTAW, FCAW and GMAW used in joining exotic metals or metal alloys which may include but is not limited to titanium, tungsten, inconel, aluminum and stainless steel. Prerequisites: WELD 128 or WELD 131 or WELD 132.