Course Descriptions
### Accounting Technology

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<td>Integrated Computer Applications for Accounting</td>
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<td>Payroll Accounting</td>
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<td>ACCT&amp; 201</td>
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<td>ACCT 204</td>
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ACCT 115 Integrated Computer Applications for Accounting

Computerized accounting systems, emphasizing various elements of an integrated general ledger package will be discussed. Special attention to hands-on operation of related accounting software packages. Prerequisites: CS 110 and ACCT& 201.

ACCT 175 Payroll Accounting

Provides an understanding of payroll records and numerous laws that affect operation of a payroll system. Prerequisite: ACCT& 201 or OT 161.

ACCT 199 Special Topics

Study and train to meet established local needs in the accounting industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

ACCT& 201 Principles of Accounting I

Addresses the fundamentals of accounting theory and practice, including: study of the accounting cycle, use of special journals, and use of accounting in management decisions. Formerly ACCT 201, Principles of Accounting.

ACCT& 202 Principles of Accounting II

Develops the accounting principles employed by partnerships and corporations with a heavy emphasis on the partners’ and stockholders’ equities. Also covers the time value of money concepts, which are used extensively throughout accounting. Prerequisite: ACCT& 201. Formerly ACCT 202, Principles of Accounting II.

ACCT& 203 Principles of Accounting III

Application of accounting concepts and techniques to managerial problems of planning and control are discussed. Accounting is viewed as a management tool. Prerequisite: ACCT& 202. Formerly ACCT 203, Managerial Accounting.

ACCT 204 Intermediate Accounting I

Addresses financial accounting principles and practices, including study of the theory and principles underlying presentation and interpretation of working capital, investments, long-term liabilities, and stockholders’ equity. Prerequisite: ACCT& 202.

ACCT 205 Intermediate Accounting II

Continuance of ACCT 204, Intermediate Accounting I. Topics include study of long-term assets and liabilities, matching principle as it relates to the Income Statement and Income Recognition. Prerequisite: ACCT 204.

ACCT 209 Cost Accounting

In-depth understanding of cost accounting systems and application of differential cost for decision-making. Also develops background for using budgets. Prerequisite: ACCT& 202.

### Adult Basic Education

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<td>ABE 001</td>
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<tr>
<td>ABE 003</td>
<td>ABE Level III</td>
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ABE 001 ABE Level I

Instruction in reading, writing, and computational skills for individuals with a goal to improve basic skills. Placement is determined by a score of less than 200 on a CASAS or other intake assessment. All students under 19 years of age must have a signed release form from the last school they attended. Students 16-17 years of age must first be admitted to the College following the Underage Admissions policy, which is available in the Student Development Center.

ABE 002 ABE Level II

Instruction in reading, writing, and computational skills for individuals with a goal to improve basic skills. Placement is determined by a score of 201-210 on a CASAS test or other intake assessment. All students under 19 years of age must have a signed release form from the last school they attended. Students 16-17 years of age must first be admitted to the College following the Underage Admissions policy, which is available in the Student Development Center.

ABE 003 ABE Level III

Instruction in reading, writing, and computational skills for individuals with a goal to improve basic skills. Placement is determined by a score of 211-220 on a CASAS test or other intake assessment test. Prerequisite: All students under 19 years of age must have a signed release form from the last school they attended. Students 16-17 years of age must first be admitted to the College following the Underage Admissions policy, which is available in the Student Development Center.
ADULT BASIC EDUCATION – AGRI-BUSINESS

ABE 004 ABE Level IV 1 - 13.5 Credits
Instruction in reading, writing, and computational skills for individuals with a goal to improve basic skills. Placement is determined by a score of 221-235 on a CASAS test or other intake assessment. All students under 19 years of age must have a signed release form from the last school they attended. Students 16-17 years of age must first be admitted to the College following the Underage Admissions policy, which is available in the Student Development Center.

ABE 005 Educational Interview 1 - 3 Credits
This learner-focused orientation course can be offered with students one-to-one, in small or large groups, or in a combination of these configurations and should begin the first quarter of enrollment. Students can register for three consecutive 1 credit courses. The course must meet for at least ten hours per quarter to earn one credit. State-mandated pre-testing and assessment testing as well as the college's registration process are included.

ABE 013 ABE Basic Math 1 - 4.5 Credits
A group course whose focus is on addition, subtraction, multiplication, and division including practice solving one- and two-step word problems, basic fractions, decimals, and simple measurement. Minimum computational skills at a level determined by intake assessment test, or by instructor permission. Prerequisite: All students under 19 years of age must have a signed release from the last school they attended. Students 16-17 years of age must first be admitted to the College following the Underage Admissions policy, which is available in the student development center. Students may enroll anytime throughout the year.

ABE 014 ABE Math 1 - 4.5 Credits
Focus is on ratio, proportion, percent, simple geometry, algebra, review of fractions and decimals, and solving multi-step word problems to prepare students for the GED math test. Prerequisite: Computational skills at a level determined by intake placement assessment, or by instructor permission. All students who are under 19 years of age must have a signed release form from the last school attended. Students 16-17 years of age must first be admitted to the College following the Underage Admissions policy, which is available in the Student Development Center.

ABE 015 ABE Reading and Writing II 1 - 5 Credits
Focus is on understanding and summarizing written material that includes unfamiliar vocabulary, reading for information, and applying it to new situations. Writing emphasizes paragraph construction with sentences that clearly express complex ideas: short reports, informal letters, memos, personal narratives. Proofreading for capitalization and punctuation, and dictionary use to learn spelling, meaning and pronunciation are also emphasized. Prerequisite: All students who are under 19 years of age must have a signed release form from the last school attended. Students 16-17 years of age must first be admitted to the College following the Underage Admissions policy, which is available in the Student Development Center.

ABE 066 Beginning Computer Skills 1 - 10 Credits
This course is designed for adult basic education students at all levels of literacy competency. This e-learning course familiarizes beginners with the basic operation and navigation of the computer, utilizes office programs for college writing and occupational applications, enhances basic communication skills using e-mail, helps students gain basic keyboarding skills, and become competent using work-related computer forms. Students will be prepared to use the computer as a tool to continue their education and obtain, or retain employment.

GED 025 GED Preparation 1 - 18 Credits
Provided in both English and bilingual settings, GED Preparation courses are offered in a variety of instructional environments: multi-level one-on-one instruction; structured courses; computer-guided courses; and learning communities. These courses emphasize proficiency in the five GED subject areas: social studies, natural science, literature, writing, and mathematics. Prerequisite: Students under 19 years of age must have a signed release form from the last school they attended. Students 16-17 years of age must first be admitted to the College as an underage student by following the Underage Admissions Policy available in the Student Development Center.

AGRI 102 Farm Records and Analysis 5 Credits
Introduction to the principles of agri-business management. Identifies a practical system of farm record keeping with analysis of these records.

AGRI 103 Introduction to Precision Agriculture and Farm Management 5 Credits
Introduction to precision agriculture application on the farm using industry specific software. Entering records, creating databases and developing field maps will be included as well as gathering and inputting yield and soils data.

AGRI 108 Computers in Agriculture 5 Credits
Introduction to microcomputer applications using Microsoft Office software. Hands-on experience including: word processing, spreadsheets, graphical presentations, databases, operating systems, and basic internet access. Student may not earn credit for both AGRI 108 and CS 110.

AGRI 191 Cooperative Work Experience 1 - 25 Credits
Opportunity to work in jobs directly related to the agriculture industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.

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AGRI-BUSINESS – AG. PLANT AND SOILS SCIENCE

AGRI 192 Cooperative Seminar 2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success.

AGRI 201 Microeconomics in Agriculture [SS] 5 Credits
Introduction to microeconomics as applied to production, consumption, and marketing issues in the business and production sectors of the economy. Topics include supply/demand theory, consumer choice theory, production theory, and costs of production. Student may not earn credit for both AGRI 201 and ECON& 201. Formerly AGRI 202.

AGRI 210 Agricultural Sales and Service 3 Credits
Structure and background of personal selling, concepts of human relations, and communications as they relate to a sales presentation. The objective is to build good skills in selling and providing service to the customer.

AGRI 211 Small Business Management 5 Credits
Introduction to management theory as applied to small business firms. Course will include role of small business in the economy, forms of business ownership, main causes for business failure and success, and the elements of a business plan.

AGRI 220 Agricultural Finance 5 Credits
Tools and concepts useful to making financial management decisions in business firms will be discussed. Topics include: the role of national economic policy and the ways in which different financial institutions are operated.

AGRI 221 Agricultural Marketing 5 Credits
Overview of the marketing system for agricultural commodities. Topics include the effect of public policy, the role of commodity futures in the marketing system, price and price analysis, and marketing strategies. Recommended: One quarter economics.

AGRI 222 Agricultural Policy [SS] 5 Credits
Goals, methods, and results of government programs and policies in agriculture. Topics include the areas of international trade, domestic farm policy, food safety and quality, resource issues and the effect on agri-business. Recommended: One quarter economics and READ 088 or higher. Student may not earn credit for both AGRI 222 and POLS 222.

AGPR 100 Orientation to Agriculture 3 Credits
A survey of the agriculture industry looking at different jobs, working conditions, employment structure, and employee-employer relationships. Each student builds a personal job portfolio to include letters of application, resume, references and job interview techniques.

AGPR 101 Introduction to Environmental Sciences [NS] 5 Credits
Provides a study of natural and modified systems and their interactions with humans and other living organisms. Students will gain scientific understanding of natural environments and the effects of human modification upon the natural world. Topics include climate, soil, water resources, riparian areas, hazardous waste, and pollution of air, food, water, and agriculture. Students will learn about assessment procedures and riparian habitat improvements used by local government agencies. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 099; or permission of the Science Division Chair or designee. Recommended: READ 088 of higher. Student may not earn credit for both AGPR 101 and ENVS& 101.

AGPR 105 Weed Biology and Identification 5 Credits
Introduction in weed science to provide an understanding of the principles and methods of controlling weeds, use and development of herbicides, methods of application and rate calculation, sprayer components and calibration, and practical knowledge of plant and seed samples of weeds common to the Pacific Northwest.

AGPR 110 Introduction to Livestock Production 5 Credits
Introduction to the livestock industry and its importance to the U.S. economy. Animal products for consumers, biological principles, and management practices will be discussed.

AGPR 111 Introduction to Environmental Sciences [NS] 5 Credits
Provides a practical understanding of plant anatomy, morphology, and growth of agriculture crops.

AGPR 112 Feeds and Feeding 5 Credits
Addresses common feeding practices and nutrient characteristics of animal feeds. Topics include ration formulation and ration requirements for cattle, sheep, hogs, and horses.

AGPR 113 Plant Anatomy and Morphology 5 Credits
Provides a practical understanding of plant anatomy, morphology, and growth of agriculture crops.

AGPR 114 Plant Physiology 5 Credits
Provides a practical understanding of plant structure, function and physiological processes involved in growth and development.

AGPR 115 Animal Health & Disease 5 Credits
Basic information on animal health and disease prevention. Topics include fundamentals of the nature of disease, nutrition, sanitation, disinfection, immunization, and basic husbandry practices.

AGPR 116 Livestock and Carcass Evaluation 5 Credits
Principles of Livestock and Carcass evaluation for the purposes of selecting meat animals in production scenarios. The basic method and procedure for evaluating carcass characteristics of cattle, hogs, and sheep. Information on carcass quality and yield. The course will also include evaluating live animals before processing, and seeing the carcass of that animal in the cooler. Class material will also cover selection of females for producing meat animals.
AGPR 120 Agricultural Chemistry  5 Credits
Fundamental course in chemistry which overviews the basics of inorganic, organic, and biochemistry with applications to agriculture and other applied science fields. Recommended: high school chemistry or equivalent.

AGPR 140 Agriculture Safety and Health  5 Credits
A synopsis of safety and worker protection in the agricultural workplace and completion of course work leading to certification of the student as a pesticide application technician. Emphasis on agricultural operations, turf management technological changes and hazards associated with pesticide and fertilizer use.

AGPR 196 Livestock Production Special Problems I  1 - 5 Credits
Participate in a number of subjects dealing with livestock production on a structured or independent study basis. Prerequisite: Instructor permission.

AGPR 197 Livestock Production Special Problems II  1 - 5 Credits
Participate in a number of subjects dealing with livestock production on a structured or independent study basis. Prerequisite: Instructor permission.

AGPR 198 Livestock Production Special Problems III  1 - 5 Credits
Participate in a number of subjects dealing with livestock production on a structured or independent study basis. Prerequisite: Instructor permission.

AGPR 199 Special Topics  1 - 5 Credits
Study and train to meet established local needs in the agri-science industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

AGPR 201 Basic Soil Science [NS]  5 Credits
Provides an understanding of soil structure and composition as related to temperature, water, and other environmental controls. Emphasizes studying soils from a land use and management perspective. Lab work required.

AGPR 202 Soils Fertility and Management  5 Credits
Study of macro- and micronutrient uptake and utilization by plants and the fertilizer products used to supply different nutrients. Topics include soil conservation, erosion control practices, and utilization of soil survey reports. Prerequisite: AGPR 201 or instructor permission.

AGPR 215 Field Crop Production  5 Credits
Production and management of field crops designed to provide the most current information in the production and management of agronomic crops important to the economy of the Pacific Northwest. Topics include plant and seed sample identification.

AGPR 216 Meat Science II  5 Credits
Principles of fabrication and marketing of meats, and the effects of preservation and storage on the physical and chemical properties of meat will be analyzed. Topics include: meat curing chemistry, smoking, and other processes used in the manufacturing of a variety of meat products.

AGPR 224 Pasture & Range Management  5 Credits
A study of the proper use and management of forage producing lands using grazing animals as a method to harvest and utilize this resource. This class will also focus on the economics of grazing livestock and the environmental sustainability issue surrounding the topic.

AGPR 230 Plant Diseases and Insects  5 Credits
Introduction to the identification, life cycles, and control of insects and diseases common to crops in Washington. Focuses on the fundamentals of entomology and plant pathology, not on specific problems and their control in a given crop. Formerly AGRI 215.

AGPR 274 Beef Cattle Production  5 Credits
Study of the economics and management strategies for raising and marketing the various types and classes of beef cattle.

AGPR 292 Leadership  2 Credits
Explore issues related to effective workplace relationships and applying leadership skills to promote personal development. Students will also be required to participate in the activities of the Ag Technology club.

AGPR 297 Special Projects  1 - 15 Credits
Project-oriented experiences in the area or applications not covered in the standard agriculture science curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.

Alcohol and Chemical Dependency

ALCDA 231 Survey of Chemical Dependency  5 Credits
Introduction to the field of chemical abuse and dependency by examining use, abuse, and addiction as these relate to alcohol and other psychoactive licit and illicit drugs.

ALCDA 233 Physiological Actions of Alcohol and Other Drugs  4 Credits
Provides an understanding of the effects of psychoactive drugs on human physiology and behavior. Psychoactive substances will be discussed in their historical, social, and physiological contexts. Emphasis will be placed on drugs of abuse and their neurochemical principles. Designed primarily for entry level chemical dependency counselors needing to meet WAC guidelines, this course is also open to anyone wishing to expand their knowledge of physiological actions of abusive drugs.

ALCDA 235 Basic Chemical Dependency Counseling/Therapy  4 Credits
Provides an understanding of effective assessment and treatment techniques necessary to address the complexities of chemical dependency. The course will use the developmental model of recovery with emphasis on skill development and clinical application.

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ALCOHOL & CHEM. DEPENDENCY - ALLIED HEALTH & SAFETY

ALCDA 236 Group Dynamics in Chemical Dependency Counseling 5 Credits
Designed to expose students to the actual functions of the therapy group. Students will observe and participate in experiential exercises that are designed to mimic the various stages of treatment.

ALCDA 237 Chemical Dependency in the Family 4 Credits
Concept of addiction as a family disease. The relationship of the family system and family involvement will be analyzed. Modalities of treatment for family members and techniques of intervention will be explored.

ALCDA 238 Chemically Dependent Client 3 Credits
Acquaints the student with the main components of managing the chemically dependent client. The course will focus on the overview of case management, rules and regulations, treatment, record keeping, assessments, treatment planning, conferences and consultation, discharge planning, and latest trends in this growing field.

ALCDA 242 Relapse Prevention 5 Credits
Students will learn to exhibit skills necessary to facilitate clients in preventing relapse by effectively using relapse prevention counseling and recovery enhancements methods to identify and manage high-risk situations. Students will learn and practice these skills in group settings.

Allied Health and Safety Education

HO 027 Nurse Delegation for Nursing Assistants 0.9 Credit
Outlines the caregiver's educational requirements for Nurse Delegation in community-based long-term care settings. This course meets Washington State DSHS/ADSA requirements for training in Nurse Delegation. Students must be a NA-C, NA-R, or be co-enrolled in the Nursing Assistant program to take this course. Students completing this course will receive a training certificate.

HO 100 Nursing Assistant 7 Credits
Students who successfully complete the program will be eligible to take the State exam for Certification as a Nursing Assistant. Prerequisites: Required placement testing READ 088 or CASAS Level V, successful completion of criminal background checks, and current required immunizations. Tuition plus additional lab and malpractice fee, textbook, gait belt and blood pressure kit are required.

HO 101 Success in Healthcare Careers 3 Credits
Prepare to master difficult concepts that require critical thinking in the healthcare field. Students will be able to succeed through practice of written, oral and electronic communications used in the health science courses and workforce. This course is specifically targeted to students with emerging English participating in the Health Care Bridge Program. However, enrollment is not limited to this specific population. Prerequisite: Appropriate placement score or grade of C or higher in READ 088 and ENGL 087; or instructor permission.

HO 102 Nursing Assistant/Advanced 1 - 5 Credits
An advanced training course designed for Nursing Assistants who have completed the basic course. Classroom, lab, and clinical components will prepare the student to work in a variety of settings.

HO 104 OTEP Training .1 - 1.2 Credits
Satisfies the continuing education requirement for First Responders and EMTs to remain certified in Washington State. Courses cover the state mandated topics and are offered throughout the county under the direction of the Medical Program Director, Walla Walla County Emergency Medical Services. This curriculum is approved by the state and is offered in Walla Walla County and throughout the South Central Region of Washington. Student must be certified EMT-B or First Responder to enroll.

HO 106 Phlebotomy Technician Program 9 Credits
Prepares the student to perform competently and safely in a clinical setting as a phlebotomy technician. The student learns to collect, handle, transport, and process blood specimens for analysis. Upon successful completion of the course, the student will be eligible to sit for examination for certification with the American Society of Clinical Pathologists. Recommended: READ 088.

HO 109 Bilingual Spanish/English Writing in the Workplace 3 Credits
Designed to help students attain skills for Spanish/English language writing. Provides a foundation for Fundamentals of Medical Translation, which leads to preparation for Washington State Translator Certification Exam. Prerequisite: Compass at or above READ 098, ENGL& 101 or WRITE 100 and Bilingual English-Spanish Proficiency Test.

HO 110 HIV/AIDS Education .7 Credit
HIV/AIDS Education provides the healthcare professional with mandatory instruction involving information/knowledge associated with HIV/AIDS, Hepatitis, tuberculosis, and related diseases. The seven-hour course presents the six state-required topics of etiology and epidemiology, transmission and infection control, testing and counseling, clinical manifestations and treatment, legal and ethical issues, and psychosocial issues. Students completing this class will receive a certificate documenting the mandatory training.

HO 130 Emergency Medical Technician 10 Credits
Instruction in delivering proper emergency care to the sick and injured in a pre-hospital setting. The overall goals are to save lives, reduce complications, and combine effective interpersonal communication with medical knowledge and skills for every patient. The course follows the DOT EMT-B curriculum with the addition of Washington State objectives as required by the Washington State Department of Health, Division of Emergency Medical and Trauma Services. Upon completion of this course, the student who is affiliated with an EMS agency is eligible to take the state EMT-B certification exam. Students completing this course may also participate in the National Registry of Emergency Medical Technicians (NREMT) EMT-B examination. Prerequisite: Acceptance to the EMT-B Program.

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HO 150 Healthy Lifestyle  
Provides an insightful overview of healthy lifestyles. Students learn about diabetes, obesity, cholesterol, effects of smoking, and other aspects of modern living. Learn current information related to influenza (the flu) and the common cold. This course is intended for both healthcare providers and the general public.

HO 161 Basic Arrhythmias  
Introduction to both normal and abnormal cardiac rhythms. A review of cardiac anatomy and physiology followed by general information regarding rhythm strips will be part of the class. The remainder of the course will focus on recognition of the common arrhythmias. Recommended: BIOL& 251 or BIOL& 211; or previous medical experience.

HO 162 12 Lead ECG Interpretation  
Introduction to interpretation of the 12 lead ECG. Topics include axis deviation, Bundle Branch blocks, Acute M.I. patterns, and Acute Coronary Syndromes. Recommended: previous training in 3 lead ECG or completion of HO 161.

HO 164 Spanish for the Medical Experience  
Enables professionals working in healthcare settings to offer immediate help to Spanish-speaking patients while waiting for Language Access Services. Emphasis is on basic, practical language needed to communicate with Spanish speaking patients and their families at the hospital or doctor's office, on the telephone, or at the patient's home.

HO 172 Pharmacology  
An overview of the principles of pharmacology and general drug classifications and formulations. Legal aspects of medication administration will be discussed. The students will be introduced to the care and handling of many medications and receive an awareness of drug related problems. This class is open to Medical Assisting students, Nursing students, and other interested health professionals.

HO 174 Transcultural Competency for Health Professionals  
An introduction to basic concepts of transcultural competency in Nursing and Allied Health with a focus on the applied aspects of cultural difference. Also examines how different cultural communities relate to health care in terms of behavior, attitude, and policy and how these are transformed into practices and standards in the medical community, impacting quality of service and producing a given outcome. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 097; or instructor permission.

HO 176 Spirituality in Healthcare  
Spiritual care is within the capability and scope of responsibility of all healthcare professionals. Students will explore the importance of spirituality in providing whole person care. Classes will include didactic and experiential learning. Evaluations of students will be by student engagement with the material and weekly written reflections on class content. Students will complete the course with tools and resources for promoting spiritual well-being for their patients and themselves.

HO 178 Spanish for the Medical Experience  
Provides an insightful overview of healthy lifestyles. Students learn about diabetes, obesity, cholesterol, effects of smoking, and other aspects of modern living. Learn current information related to influenza (the flu) and the common cold. This course is intended for both healthcare providers and the general public.

HO 181 Fundamentals of Medical Interpreting I  
Designed to help students attain the skills for Spanish/English language interpretation to be used in health care settings. Students will participate in written and oral interpretation methodologies. This course is a foundation for Fundamentals of Interpreting II which leads to preparation for the Washington State Spanish Medical Interpretation Certification Exam. Prerequisite: HO 109.

HO 182 Fundamentals of Medical Interpreting II  
Builds on the concepts from Fundamental of Interpreting I. Emphasis is placed on Spanish medical terminology relevant to healthcare settings and the general rules that apply to speaking the Spanish language. Students will participate in sight translation and oral interpretation methods. Thirty hours of practicum are required at an arranged healthcare facility. Students will be prepared to take the Washington State Spanish Medical Interpretation Certification Exam. This course prepares students to take the Washington State Spanish Medical Interpretation Certification Exam. Prerequisite: OT 280.

HO 189 Social Services Interpreting  
Designed to help students attain the skills for Spanish/English language interpretation to be used in Social Service settings. Students will participate in written and oral interpretation methodologies. This course is a foundation for the preparation for the Washington State Social Service Interpreter Exam. Prerequisite: HO 181.

HO 199 Special Topics  
Study and train to meet established local needs in the healthcare industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

HO 266 Physical Assessment  
Designed as a review for the practicing nurse or allied health professional, or as skills reinforcement to the student nurse. Practical application of clinical physical assessment skills will be the major focus of this course. Content will begin with a technique for history-taking and then assess selected major body systems. Prerequisite: BIOL& 251 and BIOL& 252.

HO 280 Medical Vocabulary  
Introduction to basic medical vocabulary. It provides the student a systematic approach to the language used in the health care system beginning with root words, prefixes and suffixes, and continuing on with the specific terms relating to normal and abnormal conditions of the body.
### American Sign Language

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<tbody>
<tr>
<td>ASL&amp; 121 American Sign Language I [H]</td>
<td>5 Credits</td>
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<tr>
<td>ASL&amp; 122 American Sign Language II [H]</td>
<td>5 Credits</td>
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</tr>
<tr>
<td>ASL&amp; 123 American Sign Language III [H]</td>
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Introduction to American Sign Language including basic sign language vocabulary and deaf culture. Students will learn to communicate in basic conversation with individuals who are deaf or have impaired hearing. From a variety of media, students will be exposed to techniques and strategies used by the profoundly deaf and the hearing-impaired to cope with life functions. Formerly COMM 108, American Sign Language I.

Continuation of ASL& 122. This is the third course in a series introducing the basics of American Sign Language (ASL). It expands on the students knowledge of the ASL vocabulary, grammar. The deaf culture is explored in relation to the use of ASL for communication. Emphasis on vocabulary for everyday communication; proper grammar; facial expression; and the tone of voice created through specific motions. Prerequisite: C- or better in ASL& 121 or equivalent course. Prerequisite: C- or better in ASL& 121 or equivalent course. Formerly COMM 109, American Sign Language II.

Continuation of ASL& 123. This is the third course in a series of three courses that introduces the basics of American Sign Language (ASL). In this course students will learn appropriate ways to express emotion and opinion. Students will sign for the class from a creative work: poetry, a play, an excerpt from a novel, or some other written work approved by the instructor. Prerequisite: C- or better in ASL& 122 or equivalent course. Formerly COMM 107, American Sign Language I.

### Anthropology

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<tr>
<td>ANTH&amp; 100 Survey of Anthropology [SS]</td>
<td>5 Credits</td>
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<tr>
<td>ANTH&amp; 206 Cultural Anthropology [SS]</td>
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Introduction to the study of anthropology. Provides a brief study of the four main subfields of anthropology: Biological Anthropology, Archaeology, Cultural Anthropology, Linguistics and various cultures around the world. Recommended: READ 088. Formerly ANTH 101, Intro to Anthropology.

Holistic and comparative study of culture in selected communities around the world which illustrate unity and diversity in human culture. Recommended: READ 088. Formerly ANTH 202, Cultural Anthropology.

Study and appreciation of the various periods in the history of art and the materials and methods used by artists. Formerly ART 100, Art Appreciation.

Introductory course which explores the basic techniques of drawing using a variety of media such as charcoal, pen and ink, oil pastel, and mixed media. Appreciation and study of drawings by major artists are also included. Daily assignments and lab hours required. Materials to be purchased.

Intermediate course which explores the basic techniques of drawing using a variety of media such as conte crayon, charcoal, pen and ink, oil pastel, and mixed media. Appreciation and study of drawings by major artists are also included. Daily assignments and lab hours required. Materials to be purchased. Prerequisite: ART 101.

More advanced drawing course for students who are interested in drawing the human figure. Continued study of line, shape, value, texture, and color with emphasis on composition of life drawings. Also an appreciation and study of major artists. Daily assignments and lab hours required. Materials to be purchased. Prerequisite: ART 101 or instructor permission.

Study and application of the formal elements of art structure. Problems in organization of line, shape, value, texture, and color. Emphasis on composition and presentation of black and white and designs. Materials to be purchased.

Study and application of the formal elements of art structure. Problems in organization of line, shape, value, texture, and color. Emphasis is on composition of color designs. Materials to be purchased.

Study and application of the elements of three-dimensional art structure. Emphasis on composition and presentation of three-dimensional designs. Lab hours required and materials to be purchased.

Introduces digital techniques and concepts as they aid and expand the possibilities of traditional drawing, painting, and photography. It emphasizes the synthesis of artistic expression and technological competence through hands-on experience in creating art through both traditional and digital media. Topics include vector and bitmap imaging, computer applications used as tools for traditional art forms, collaboration and hybrid forms of visual art.

For the most current information see: [www.wwcc.edu](http://www.wwcc.edu)
ART 108 Commercial Art Foundations  5 Credits
Introduces the software, materials, and techniques used in marketing, advertising, branding, and identity design. Emphasis is placed on design for advertising and branding for existing and new companies. Upon completion, students should be able to demonstrate competence in design principles, typography, branding techniques, and have developed a self-branded portfolio. This course counts as an elective toward an AA degree, rather than credit toward the Humanities requirement.

ART 111 Introduction to Studio Art Practices [HP]  4 Credits
Basic studio/lecture format introducing a variety of the fine art studio techniques, processes, tools and materials commonly used by working artists: painting, drawing, printmaking, design (with various emphasis; digital, graphic, etc.), ceramics, sculpture, calligraphy, photography. Five of these studio areas will be chosen for the quarter. Emphasis on craftsmanship and visits to local studios.

ART 115 Drawing for Farrier Science [HP]  1 Credit
Visual acuity and technical dexterity are much needed skills for Farrier Science. Through the process/experience of drawing, one develops a greater visual awareness: an understanding between the difference of looking and seeing. Drawing for Farrier Science will utilize formal drawing skills in the depiction of both traditional still-life forms and equine anatomical schematics. Prerequisite: Must be enrolled in the Farrier Science program.

ART 124 Women Artists in History [D, H]  5 Credits
Explore over forty women artists in the context of their times. Discuss issues of social justice, moral conflicts, cultural expectations, institutional obstacles and limitations. Student may not earn credit for both ART 124 and WST 124.

ART 127 History of Western Art I [H]  5 Credits
Architecture, sculpture, painting, and crafts are studied for an examination and understanding of style. A study of art of Europe, Egypt, and the Near East from the Prehistoric Period through the Middle Ages. Craftsmanship, and cultural function will be discussed. This course is the first in a three-quarter sequence but may be taken out of sequence.

ART 128 History of Western Art II [H]  5 Credits
Study of art in Europe and Early America from the fourteenth through the eighteenth centuries. Architecture, sculpture, painting, and crafts are studied. Special attention is given to the theme of the changing role of the artist. This course is the second in a three-quarter sequence but may be taken out of sequence.

ART 129 History of Western Art III [H]  5 Credits
Study of art in Europe and the U.S. made during the nineteenth and twentieth centuries. Architecture, sculpture, painting, printmaking and the photo arts, are studied. Influences of the past, combined with the rapid technological and cultural changes of the Modern Age, are explored to develop an understanding of the art of our own times. This course is the third in a three-quarter sequence but may be taken out of sequence.

ART 130 Painting I [HP]  4 Credits
Exploration of the various methods of painting. Emphasis on composition and presentation of acrylic paintings. Also includes appreciation and study of paintings by major artists. Lab hours required and materials to be purchased.

ART 131 Painting II [HP]  4 Credits
Intermediate course for exploration of the various methods of painting. Emphasis on composition and presentation of acrylic paintings. Also includes appreciation and study of paintings by major artists. Lab hours required and materials to be purchased. Prerequisite: ART 130.

ART 132 Painting III [HP]  4 Credits
Advanced course for exploration of the various methods of painting. Emphasis on composition and presentation of acrylic paintings. Also includes appreciation and study of paintings by major artists. Lab hours required and materials to be purchased. Prerequisite: ART 131.

ART 151 Printmaking [HP]  4 Credits
Exploration of the relief, silkscreen, and intaglio methods of printmaking. Materials to be purchased. Lab hours required.

ART 152 Printmaking II [HP]  4 Credits
Exploration of the relief, silkscreen, and intaglio methods of printmaking. Lab hours required and materials to be purchased. Prerequisite: ART 151.

ART 153 Printmaking III [HP]  4 Credits
Exploration of the relief, silkscreen, and intaglio methods of printmaking. Lab hours required and materials to be purchased. Prerequisite: ART 152.

ART 160 Ceramics I [HP]  4 Credits
Introduction to theory, history, and aesthetics of ceramics with emphasis on various hand building methods. Lab hours required and materials to be purchased.

ART 161 Ceramics II [HP]  4 Credits
Intermediate study of theory, history, and aesthetics of ceramics using hand building methods with a focus on wheel throwing. Lab hours required and materials to be purchased. Prerequisite: ART 160 or instructor permission.

ART 162 Ceramics III [HP]  4 Credits
Advanced study of theory, history, aesthetics of ceramics using hand building and wheel thrown forms. Lab hours required and materials to be purchased. Prerequisite: ART 161 or instructor permission.

ART 167 Sculpture I [HP]  4 Credits
Introduction to the theory and application of three-dimensional forms in space using a variety of media such as plaster, wire, steel assemblage, cardboard and wood.

ART 168 Sculpture II [HP]  4 Credits
Intermediate study of theory and application of three-dimensional forms in space using a variety of media such as plaster, wire, steel assemblage, cardboard and wood. Prerequisite: ART 167 or instructor permission.
ART 169 Sculpture III [HP]  4 Credits
Advanced study of theory and application of three-dimensional forms in space using a variety of media such as plaster, wire, steel assemblage, cardboard and wood. Prerequisite: ART 168 or instructor permission.

ART 170 Fundamentals of Digital Filmmaking  5 Credits
Designed to introduce students to the history, philosophy, theory and techniques of developing and producing short films that are shot on digital video cameras and edited digitally on computers with professional software. Centers on learning elements of visual storytelling through a spectrum of aesthetic approaches. Students learn sequencing, shooting, and editing skills as they develop and produce their own films. Classes will consist of group discussions, critical sessions and hands on exercises in digital filmmaking. Students are expected to work in groups and engage in analysis of professional video production scenarios. This course does not meet the Humanities requirement for the AA degree.

ART 199 Special Projects  1 - 5 Credits
For intermediate students wishing to expand their knowledge and to develop their skills in the various fine arts media through directed individual studies. Prerequisite: Instructor permission.

ART 230 Painting IV  4 Credits
Advanced exploration of the various methods of painting. Emphasis on composition and presentation of acrylic painting projects, but students may choose to work with other media. Lab hours required and materials to be purchased. Prerequisite: ART 132.

ART 260 Ceramics and Sculpture I [HP]  4 Credits
Theory, history, aesthetics of ceramics and sculpture using hand building and wheel thrown forms. Lab hours required and materials to be purchased.

ART 261 Ceramics and Sculpture II [HP]  4 Credits
Theory, history, aesthetics of ceramics and sculpture using hand building and wheel thrown forms. Lab hours required and materials to be purchased.

ART 262 Ceramic and Sculpture III [HP]  4 Credits
Theory, history, aesthetics of ceramics and sculpture using hand building and wheel thrown forms. Lab hours required and materials to be purchased.

ART 299 Special Projects  1 - 5 Credits
For advanced students wishing to expand their knowledge and to develop their skills in the various fine arts media through directed individual studies. Students must consult with the instructor before enrolling. Prerequisite: Instructor permission.

ASTR& 110 The Solar System [NS]  5 Credits
Examination of the formation of our solar system and the nature of our sun and planets. Topics include historical development of the science of astronomy. Lab work required. Prerequisite: Math 74C; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly ASTR 110, The Solar System.

ASTR 115 Stellar Astronomy [NS]  5 Credits
Explores the formation, evolution, and death of stars. Our sun is used as an example of ordinary stars in their middle age. The birth of stars and the final states they may occupy at their deaths are treated extensively. Extraordinary stars, extremely massive stars, black holes, neutron stars, white dwarfs, etc., are discussed. Lab work required. Prerequisites: MATH 74C; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher.

ASTR 120 Galaxies, the Universe and Cosmology [NS]  5 Credits
Current ideas concerning the nature of galaxies and the universe as a whole. Topics include (all in a descriptive, predominately non-mathematical manner): general relativity and curved space time, black holes, quasars, and The Big Bang model of cosmology. Lab Work Required. Prerequisites: MATH 74C; Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher.

ABT 100 Introduction to Auto Body Repair  1 - 21 Credits
Provides high school students with an overview of the auto body repair industry. Topics include body shop safety, use of common hand tools, power tools, body hand tool operations and body fasteners. Prerequisite: Current High School student.

ABT 104 Introduction to Auto Body Repair I  10 - 21 Credits
Introductory evening course for the auto body repair industry. Topics include body shop safety, use of common hand tools, power tools, body hand tool operations and body fasteners.

ABT 105 Introduction to Auto Body Repair II  1 - 21 Credits
Evening course for the auto body repair industry. Topics include body shop safety, use of common hand tools, power tools, body hand tool operations and body fasteners. The study of mild and high strength steel, sheet metal design, and collision damage analysis will be covered.

ABT 161 Auto Body Repair I  1 - 21 Credits
Body shop safety, use of common hand tools, power tools, body hand tool operations, and body fasteners will be covered. The study of mild and high strength steel, sheet metal design, and collision damage analysis.

ABT 162 Auto Body Repair II  1 - 21 Credits
Provides job planning, sheet metal repair, and metal finishing operations. Glass replacement, the alignment of doors, hoods, fenders, and applying body plastic filler and fiberglass repair will also be covered.

ABT 163 Auto Body Refinishing  1 - 21 Credits
Spray painting equipment and facilities, spraying techniques, surface preparation, undercoat materials and applications, spot painting and blending, complete painting and color theory, matching fundamentals and techniques will be covered.

For the most current information see: www.wwcc.edu
ABT 191 Cooperative Work Experience  1 - 5 Credits
Opportunity to work in jobs directly related to the auto body industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.

ABT 192 Cooperative Seminar  2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: ABT 191.

ABT 199 Special Topics  1 - 10 Credits
Study and train to meet established local needs in the auto body repair industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

ABT 264 Unibody Rebuilding  1 - 21 Credits
Unibody and frame repair; the replacement of structural components; fundamentals of electricity; reading of wiring diagrams; chassis wiring and repairs; repairing power windows, power seats, and other accessory units will be covered.

ABT 265 Electrical Mechanical  1 - 21 Credits
Repair of suspension and steering systems, brake systems, air conditioning systems, cooling systems, drive trains, fuel intake and exhaust systems, and restraint systems. Four wheel alignment and corrections will be covered.

ABT 266 Damage Estimating and Shop Operation Credits  1 - 21
Introduction to procedure and sequence of writing collision damage estimates. Familiarization with body shop management. Introduction to material (physical) damage, insurance policies, and adjusting. Identification and repair procedures for plastic repair.

ABT 267 Advanced Auto Body Technology  1 - 21 Credits
Provides advanced training for students who have completed the AAAS Degree in Auto Body Repair Technology and desire specialized training in a specific area. Prerequisite: Instructor permission.

ABT 297 Special Projects  1 - 21 Credits
Project-oriented experiences in the area or applications not covered in the standard auto body curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.

ABT 299 Leadership  1 Credit
Encourage students to develop awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.

Automotive Repair Technology

AMM 100 Introduction to Auto Repair  1 - 5 Credits
Provides high school students with the basics of automotive maintenance including the identification of vehicle systems and basic diagnostics and repairs. Topics include workplace safety, basic shop procedures, tool identification, proper use of fasteners and precision measurement. Prerequisite: Current high school student and instructor permission.

AMM 104 Auto Upkeep: Basic Car Care  1 - 3 Credits
Introduction to auto mechanics for anyone who is unfamiliar with basic auto maintenance and repair. Topics include vehicle basics, safety, fluids, wheels and tires, changing tires, emergency equipment, tools, brakes, and vehicle shopping tips/tools. The intent is to provide the consumer with the knowledge to make economic decisions and to take preventative measures to enhance owner satisfaction. (The class will not perform major vehicle repairs.) Dress in comfortable work clothes. This class is taught by ASE Certified instructors.

AMM 105 Auto Technician In-Service  1 - 3 Credits
Designed to prepare students for the ASE exam. Computer based training which introduces the student to electrical/electronic systems diagnosis. Students will use computer software to simulate use of a digital volt-ohmmeter to practice diagnostic procedures performed on electrical and electronic automotive systems found on today’s automobiles. This course is suitable for apprentice and journeyman automotive technicians interested in furthering their understanding of modern automotive electronic systems.

AMM 145 Auto Related Industry  1 - 6 Credits
Introduction to the automotive repair industry. The student will learn automotive terminology, shop and personal safety, handling and storing of hazardous materials, identification and operation of shop equipment and specialized tools, identification of hand tools, micrometer use and measure given objects within .0005 tolerance and the use of drills, taps and dies. The student will be become familiar with all major components of the vehicle. Students will study wheels and tires, theory, diagnosis and service. Students will learn automotive maintenance operations. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisites: AMM 149 and 245. Prerequisites: Instructor permission.
AUTOMOTIVE REPAIR TECHNOLOGY

AMM 149 Hybrid and Alternative Fuel Vehicles  1 - 2 Credits
Introduction to alternative fuel and hybrid electric vehicles. The student will learn automotive terminology, vehicle safety, handling of high voltage components and specialized tool and equipment usage. The student will become familiar with all major components of typical hybrid powered vehicles. Emergency procedures on hybrid vehicles will be covered. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisites: AMM 145 and 245. Prerequisite: Instructor permission.

AMM 151 Engine Performance  1 - 13 Credits
Introduction to automotive fuel delivery and fuel injection systems. Students will study fuel pumps, fuel filters, fuel injection system operation, diagnosis and repair and emission systems. Students will learn to use automotive scan tools, automotive oscilloscopes, engine analyzers gas analyzers and other specialized fuel system tools and equipment. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisites: AMM 171 and 181.

AMM 152 Engine Performance II  1 - 13 Credits
Introduction to automotive ignition system theory, diagnosis and repair, emission systems theory, diagnosis and repair and on-board computer system theory, diagnosis, and repair. Students will learn to use automotive scan tools, automotive oscilloscopes, engine analyzers and other specialized engine performance tools. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisites: AMM 151 and 181.

AMM 161 Electrical and Electronics  1 - 21 Credits
Introduction to electricity and electronics used in the automotive industry. Students will study voltage, resistance, amperage, ohms law, circuits, wiring diagrams and use of electrical and electronics test equipment. This course will cover major and accessory electrical devices used on today's vehicles. Emphasis will be placed on theory, diagnosis, service and repair of all electrical components. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Prerequisite: AMM 151; Co-requisites: AMM 232 and 242.

AMM 167 Air Conditioning and Heating  1 - 4 Credits
Introduction to Climate Control and Comfort systems. The student will learn air conditioning terminology, system safety, refrigeration principles, operation, service and repair of refrigeration plumbing systems. Students will learn the proper use of specialized tool and equipment usage. The student will become familiar with all major components of a typical climate control system. Class will consist of hands-on practical application of concepts learned in the classroom. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Prerequisite: AMM 161; Co-requisites: AMM 151 and 181.

AMM 181 Suspension and Alignment  1 - 4 Credits
Introduction to the automotive alignment and suspension theory, diagnosis and repair. The student will learn automotive terminology, shop and personal safety. Students will learn suspension and alignment principles, two and four wheel alignment, suspension diagnosis and repair, tire and wheel diagnosis and repair. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisites: AMM 151 and 171.

AMM 191 Cooperative Work Experience  1 - 21 Credits
Opportunity to work in jobs directly related to the auto repair and service industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.

AMM 192 Cooperative Seminar  2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: AMM 191.

AMM 199 Specials Topics  1 - 10 Credits
Study and train to meet established local needs in the automotive repair industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

AMM 210 Engine Rebuild  1 - 21 Credits
Disassembly, inspection, and reassembly of the gasoline internal combustion engine. Hands-on applications including emphasis on disassembly, cleaning and inspection of cylinder block and cylinder head components; instruction in the use of precision measurement tools to measure wear of cylinders and other major components of the engine. This instruction will include grinding valves, checking guides, and installing rod, main and cam bearings, timing gears and chain, pistons and rings. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations.

AMM 224 Automatic Transmission/Transaxles  1 - 13 Credits
Introduction to automatic transmission and transaxles. Students will learn theory, diagnosis and repair of automatic drivetrain components used on today's light duty vehicles. Subjects covered in this course are; clutch elements, planetary gear sets, hydraulic systems, electronic controls, valve bodies and CVT's. Students will learn to use specialized equipment necessary to diagnose and repair automatic transmissions and transaxles. This
course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisite: AMM 225.

AMM 225 Manual Drive Train and Axles  1 - 8 Credits
Introduction to manual transmission, transaxles, clutches, differentials and transfer cases. Students will learn theory, diagnosis and repair of manual drivetrain components used on today's vehicles. Students will learn to diagnose and repair clutches, differentials, transfer cases and drive axles. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisite: AMM 224.

AMM 232 Air Conditioning and Heating II  1 - 4 Credits
Review of refrigeration systems. The student will learn air conditioning terminology and system safety. Students will learn the proper use of specialized tools and equipment used to test advanced HVAC control systems. The student will become familiar with all major components of a typical manual and electronic climate control system. Class will consist of hands-on practical application of concepts learned in the classroom. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Prerequisite: AMM 171; Co-requisite: AMM 152 and 242.

AMM 242 Suspension and Alignment II  1 - 4 Credits
Advanced automotive alignment theory, diagnosis and repair. The student will learn automotive terminology, shop and personal safety. Students will learn advanced alignment procedures, electronic suspension theory, diagnosis and repair and vehicle stabilization theory, diagnosis and repair and vehicle suspension related drivability diagnosis and repair. Students will learn to operate advanced features of four wheel alignment machine and specialized equipment necessary to diagnose and repair advanced suspension systems. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Prerequisite: AMM 181; Co-requisites: AMM 152 and 232.

AMM 245 Brakes  1 - 13 Credits
Training in theory, diagnosis and repair of automotive brake systems. Students will study disc, drum and anti-lock brake systems. This course is structured to provide competency-based application of NATEF automotive repair tasks in a working shop environment and will provide students with the background and knowledge to take the ASE certification examinations. Co-requisites: AMM 145 and 149. Prerequisite: Instructor permission.

AMM 247 Advanced Auto Repair  1 - 21 Credits
Provides advanced training for students who have completed the AAAS Degree in Auto Mechanics and desire specialized training in a specific area. Prerequisite: Instructor permission.

AMM 297 Special Projects  1 - 21 Credits
Project-oriented experiences in the area or applications not covered in the standard automotive repair technology curriculum. Prerequisite: Instructor permission, based on evaluation of student's education and work experience.

AMM 299 Leadership  1 Credit
Encourage students to develop awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.

Bioenergy

ALTE 101 Introduction to Bioenergy  2 Credits
A trained and skilled workforce is needed to fulfill growing demands for Biorefinery Operators who can safely and effectively help operate and manage facilities and systems that convert biomass such as: manure, forest slash, food waste, agriculture residues, wood processing residues, and dedicated energy crops (e.g. oilseeds, grasses, hybrid poplar, yellow pine, willow, algae) -- into electricity, heat, transportation fuels, recovered nutrients/ soil amendments, reclaimed water, animal feed, bio-chemicals, and other byproducts.

ALTE 102 Biorefinery Processes  3 Credits
In-depth examination of Biorefineries and the role Biorefinery Operators play in the Bioenergy workforce. Build familiarity with the purpose and function of major Biorefinery processes, including: Feedstock Harvest and Delivery, Pre-treatment, Hydrolysis, Lab Analysis, Fermentation, Transesterification, Gasification, Anaerobic Digestion, Distillation, Hydrotreatment, Dehydration, Oligomerization, Pyrolysis, and Commodity Sales. Introduction to the operating procedures and safety protocols that exist at Biorefineries. Build knowledge on how to identify and track issues before they become critical. Prerequisite: ALTE 101

ALTE 103 Biorefinery Equipment  3 Credits
Develop a good working knowledge of the core equipment used to control and operate Biorefinery processes and keep operations functional with high degree of efficiency. Begin to develop Biorefinery Operator Handbook to become familiar with key process equipment, the principles of process controls, and technical operating procedures. Develop knowledge about equipment's mechanical integrity requirements, the ranges and thresholds with which the equipment can be operated safely and still function as intended. Participate in scenarios to ID and correct abnormal operating conditions. Engage in safety practice to prevent emergencies: using personal protective equipment (PPE), Emergency Rapid Response and Procedures, Lockout/Tag out, and Process Safety Management (PSM). Prerequisite: ALTE 102
### Biological Sciences

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**ALTE 111 Biomass Feedstock Management**

Learn about growing, harvesting, storage, processing and utilization of biomass such as: manure, forest slash, food waste, agriculture residues, wood processing residues, and dedicated energy crops (e.g. oilseeds, grasses, hybrid poplar, yellow pine, willow, algae) into electricity, heat, transportation fuels, recovered nutrients/soil amendments, reclaimed water, animal feed, bio-chemicals, and other byproducts. Review technologies available to convert biomass for fuels, electricity, heat, byproducts, reclaimed water, and carbon sequestration in PNW. Includes study of biomass focused economics, rural sociology, and the latest news/findings from research.

**ALTE 201 Biorefinery Operations**

Develop a good working knowledge of the written and practiced operating, safety, and emergency response procedures at Biorefineries. Continue to develop and complete Biorefinery Operator Handbook to become familiar with key process equipment and technical operating procedures. Develop knowledge of the duties of a Biorefinery Operator to manage and monitor all the processes of a Biorefinery as one integrated and interdependent system. Participate in systems level scenarios to ID and correct abnormal operating conditions. Engage in further safety practice to prevent emergencies: using personal protective equipment (PPE), Emergency Rapid Response and Procedures, Lockout/Tag out, and Process Safety Management (PSM). Prerequisite: ALTE 103, ALTE 291 and 292 (optional)

**ALTE 202 Bio-Chemical Conversion**

Build a core understanding of the essential bio-chemical principles and tools utilized within Biorefineries to prepare and manage the micro-organisms that convert such chemicals as sugars and nutrients into higher value added products. Prerequisite: ALTE 201, PHYS 221 (or EST 100 or greater), AGPR 120 (or greater), BIOL 100 (or greater), OCSUP 106 (or greater), ALTE 291 and 292 (optional)

**ALTE 203 Thermo-Chemical Conversion**

Build a core understanding of the essential thermo-chemical principles and tools utilized within Biorefineries to prepare and manage the feedstocks that are converted into higher value added products through a series of chemical reactions involving heat and pressure. Prerequisite: ALTE 202, PHYS 222 (or three or more EST courses), ALTE 291 and 292 (optional)

**ALTE 291 Cooperative Work Experience I**

Opportunity to work in jobs directly related to the Bioenergy industry. This formal training period is agreed upon by the student, employer and instructor. Prerequisite: ALTE 103 and Instructor permission. Co-requisite: ALTE 292.

**ALTE 292 Cooperative Seminar I**

Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: ALTE 291.

**BIOL& 100 Survey of Biology [NS]**

Developed around central themes in contemporary biology, this course emphasizes ecology, genetics, evolution and the diversity of life. Units on cells, plants, and animals illustrate the characteristics of living organisms and basic life processes. Discussions of recent advances in biology and the problems incurred will be included. This course is primarily intended for undecided or non-science students. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly BIO 110, Survey of Biology.

**BIOL 130 General Ecology [NS]**

Study of the interrelationships of organisms with their environment. General ecological principles are applied to contemporary problems such as pollution, endangered species, energy shortages, and over-population. Field trips and lab exercises support lecture discussions. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher. Formerly BIO 130.

**BIOL 150 Applied Equine Biology**

Focuses on the structure and function of the horse. Topics include units on the skeletal, muscular, digestive, and reproductive systems. Nutrition, health care, emergency aid, and disease prevention will also be discussed. This course does not include a lab. Recommended: READ 088 or higher. Formerly BIO 170.

**BIOL& 160 General Biology [NS]**

Introduction to the study of the cell, the basic component of all living organisms. This class is intended to provide a solid background for students planning to enter Allied Health programs. Emphasis is on cell chemistry, structure, metabolism, energetics, cell division and genetic principles. The basics of DNA technology are also covered. Lab work is required. This course does not satisfy the prerequisite for BIOL& 212 or BIOL& 213. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly BIO 151, Cell Biology.

**BIOL& 170 Human Biology [NS]**

Non-lab survey course that addresses all of the systems in the human body. Provides a general overview of the structure (anatomy), organization and functions (physiology) of the human body and will investigate the range of human organization from molecules to cells to organs to organ systems to the organism as a whole. [NS] Prerequisite: Appropriate placement score of grade C or higher in ENGL 087; or permission of the Science Division Chair or designee.

For the most current information see: www.wwcc.edu
BIOL& 175 Human Biology w/Lab [NS]  5 Credits
Emphasizes acquiring sufficient background to make informed decisions about the biology of the human body. THIS COURSE DOES NOT FULFILL THE REQUIREMENTS FOR THE NURSING PROGRAM. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087 or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly BIO 120, Biology of the Human Organism.

BIOL 180 Introduction to Conservation [NS]  5 Credits
Introductory course covering the history, philosophical paradigms, central concepts, techniques, and challenges of conserving major natural resources in varied social, economic, and political contexts. A brief introduction of ecology and environmental biology will serve as the foundation for discussion of conservation concepts. This course does not include a lab. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087. Recommended: READ 088.

BIOL 199 Special Topics  1 - 5 Credits
Special Topics in biology is a variable credit class to allow students to have the opportunity to engage in independent research or explore special interests and topics.

BIOL 205 Introduction to Animal Behavior [NS]  5 Credits
Study of the behavior and social organization of a variety of animal groups ranging from insects to primates; analysis of general principles of behavior modes; observation of animal behavior in the field and laboratory. Lab work required. Prerequisites: BIOL& 100, or BIOL& 160, or BIOL& 211, or BIOL 130.

BIOL& 211 Majors Cellular [NS]  5 Credits
An introductory cell biology course for biology majors and other pre-professional students planning to transfer to a four-year university. This is the first of a three-quarter sequence which provides a full year of introductory biology. This course provides an emphasis on cellular chemistry, eukaryotic and prokaryotic cell structure and function, metabolism, energetics, cell growth, Mendelian and molecular genetics. Lab work is required. Students preparing for Allied Health programs are advised to take BIOL& 160. Prerequisite: Grade of C or higher in High School Chemistry (1 year) or CHEM& 110 or higher and appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088.

BIOL& 212 Majors Animal [NS]  5 Credits
General structure and classification of animals followed by a more detailed treatment of the anatomy, physiology and behavior of each of the invertebrate phyla. Lectures are supported by dissections, experiments, and field trips. Lab work required. Prerequisite: BIOL& 211. Formerly BIO 153, General Zoology I.

BIOL& 213 Majors Plant [NS]  5 Credits
Introduction to the basic structure and function of stems, roots, leaves, flowers, fruits, and seeds. Growth, hormones, plant movements, photosynthesis, genetics, plant breeding, plant taxonomy, and a survey of the kingdoms Protista, Fungi, and Plantae are included. Lab work required. Prerequisite: BIOL& 211. Formerly BIO 152, General Botany.

BIOL 221 Systematic Botany (Plant Identification) [NS]  5 Credits
Introduction to plant identification with emphasis on plants native to Eastern Washington. Techniques of collection, preservation, mounting, and flora identification through use of plant identification keys will be applied. Basic botany principles related to the structure and function of a typical flowering plant will be introduced. Lab work required. Prerequisite: BIOL& 100 or 211, or AGPR 113, 114 or AGRI 215. Recommended: READ 088. Formerly BIO 221.

BIOL& 251 Human Anatomy & Physiology I [NS]  5 Credits
Study of the structure and function of the human body. Includes the following systems: endocrine, cardiovascular, respiratory, digestive, urinary. Mammalian dissections, tissue and fluid analyses, and microscopic histologic observations are emphasized in the lab. Lab work required. Prerequisite: Grade of C or higher in BIOL& 160 or 211. Formerly BIO 210, Anatomy & Physiology I.

BIOL& 252 Human Anatomy & Physiology II [NS]  5 Credits
Study of the structure and function of the human body. Topics include introduction to the human body, histology, and the skeletal, muscular, and nervous systems. Instruction includes mammalian dissections, model study, microscopy, lectures and multi-media presentations. Lab work required. Prerequisite: Grade of C or higher in BIOL& 160 or 211. Formerly BIO 211, Anatomy & Physiology II.

BIOL& 253 Human Anatomy and Physiology III [NS]  5 Credits
Study of the structure and function of human body. Topics include reproductive system, embryology, the special senses, lymphatic and immune system, metabolism, and fluids and electrolyte balance. Prerequisite: Grade of C or higher in BIOL& 251. Formerly BIO 212, Anatomy and Physiology III [NS]

BIOL& 260 Microbiology [NS]  5 Credits
Study of the general biology of microorganisms and their classification, morphology, and physiology with emphasis on the importance of microorganisms causing infectious diseases. Immunology will be discussed as it pertains to the microorganisms. Culturing and characterization of microorganisms are the focus of the lab. Lab work required. Prerequisite: Grade of C or higher in BIOL& 160 or 211 or permission of the Science Division Chair or designee. Formerly BIO 230, Microbiology.

BIOL 265 Introduction to Immunology  2 Credits
Tissues, cells and molecules of immune system, innate immunity and complement, adaptive immunity, cellular and humoral immune responses, cytokines, T-cell activation, the major histocompatibility complex, antibody structure and function, immune system and cancer, autoimmunity, hypersensitivity. This course does not include a lab. Prerequisite: Grade of C or higher in BIOL& 260 or BIOL& 252, or concurrent enrollment in the WWCC Nursing Program. Formerly BIO 265.

For the most current information see: www.wwcc.edu
BUS 101 Intro to Business [SS]  5 Credits
This course provides an overview of business, focusing on the world of business today within the context of our global society. Basic principles and concepts include; business models, entrepreneurship, functional areas of business, management, organizational structure, human resources, marketing, information systems, finance, ethics and social responsibility as well as emerging business topics. Key themes woven throughout the course include exploration of career options and development of business problem-solving skills.

BUS 102 Customer Service  5 Credits
Review the many skills that make up effective customer service, including: customer behavior, determining customer needs, handling difficult customers, selling customer services, encouraging customer loyalty, and practicing service recovery. Formerly BA 102.

BUS 112 Business Mathematics  5 Credits
Develops competency in common business calculations for use in financial decision-making including: percentages, trade and cash discounts, pricing, simple and compound interest, discounting, annuities, and sinking funds. Calculations performed on calculator and formulas developed for use in spreadsheet software. Recommended: MATH 40. Formerly BA 102.

BUS 136 Business Communications I  5 Credits
A comprehensive review of correct language usage and structure for business writing including: grammar, punctuation, business vocabulary, capitalization, and frequently misspelled words. Recommended: ENGL 077. Formerly BA 136.

BUS 137 Business Communications II  5 Credits
Introduces the correct structure and writing technique for a variety of business documents including electronic and oral communication in today's business world. Prerequisite: BUS 136 or instructor permission. Formerly BA 137.

BUS 140 Business Communications For Entrepreneurs  5 Credits
Introduces the correct structure and writing technique for a variety of business documents including electronic and oral communication in today's business world. Taught in context of a Business Plan and Entrepreneurial project. Students will be in a cohort group and course will be tightly integrated with other Entrepreneurial course work required for the certificate. Prerequisite: Instructor permission.

BUS 157 Human Relations in Business  5 Credits
Assess and develop human relations skills through a skill building approach with an emphasis on self-esteem and maintaining positive attitudes. Topics include understanding human relations, behavior, and performance; diversity in personality and learning styles; perception; attitudes; values; communication skills; motivation; leadership; transactional analysis; assertiveness and conflict resolution; power, politics, and ethics; teams; problem-solving and decision-making, change; productivity and participative management. Recommended: READ 088. Formerly BA 157.

BUS 180 Principles of Management For Entrepreneurs  5 Credits
Modern management is both exciting and challenging today. Through the use of the internet and other related digital applications managers today have at their request the most revolutionary tools since the development of the assembly line and Henry Ford. The course is organized around the four traditional functions of management: planning, organizing, leading and controlling. There will also be contemporary topics discussed such as technology, empowerment, diversity and TQM. Taught in context of a Business Plan and Entrepreneurial project. Students will be in a cohort group and course will be tightly integrated with other Entrepreneurial course work required for the certificate. Prerequisite: Instructor permission.

BUS 181 Cooperative Work Experience I  2 - 5 Credits
Opportunity to work in jobs directly related to career choices. This formal training period is agreed upon by the student, employer, and instructor. Co-requisite: BUS 182. Formerly BA 181.

BUS 182 Business Leadership Seminar I  3 Credits
Gain and apply leadership skills to promote professional and personal development. Topics include the Twelve Key Traits for Workplace Success, Successful Job Search and Retention Strategies, and Effective Business Leadership. Students are required to be a paid and active member of Phi Beta Lambda and complete assigned community service and personal enrichment hours. Formerly BA 182.

BUS 187 Principles of Selling  5 Credits
Analyze how sales personnel meet customers' needs, present benefits, gain commitment for purchase and provide service after the sale. FAB and AIDA will be discussed as a means to developing sales presentations. Students will demonstrate each type of sales presentation to include the development of visuals to aid in presentations. Formerly BA 187.

BUS 189 Principles of Management  5 Credits
Modern management is both exciting and challenging today. Through the use of the internet and other related digital applications managers today have at their request the most revolutionary tools since the development of the assembly line and Henry Ford. The course is organized around the four traditional functions of management: planning, organizing, leading and controlling. There will also be contemporary topics discussed such as technology, empowerment, diversity and TQM. Formerly BA 189.

BUS 191 Cooperative Work Experience II  2 - 5 Credits
Opportunity to work in jobs directly related to career choices. This formal training period is agreed upon by the student, employer, and instructor. Co-requisite: BUS 192. Formerly BA 191.

BUS 192 Business Leadership Seminar II  3 Credits
Gain and apply leadership skills to promote professional and personal development. Topics include effective business leadership and networking with local business leaders. Students are required to be a paid and active member of Phi Beta Lambda and complete assigned community service and personal enrichment hours. Formerly BA 192.

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**BUS 194 Entrepreneurship Development** 5 Credits
An entrepreneur, facing risk and uncertainty, considers resources in new and different ways in hopes of creating value; this is often done through a new business venture. This course will help develop students’ analytical and critical skills. Students will review the steps for opening a business and complete a business plan clearly evaluating and illuminating the opportunity for entrepreneurial enterprise. Prerequisite: Instructor Permission.

**BUS 197 Electronic Commerce: A Business Perspective** 5 Credits
Identifies the principle components of electronic commerce. Reviews the critical areas of electronic business interactions, how the internet works, security, forms of payment, and the key elements of an electronic commerce business plan. Formerly BA 197.

**BUS 199 Special Topics** 1 - 5 Credits
Study and train to meet established local needs in the business industry, supplemental to courses currently offered. Prerequisite: Instructor permission. Formerly BA 199.

**BUS & 201 Business Law I** 5 Credits
Introduction to law with an analysis of its origin and development and its interaction with business, including: legal procedures, contractual capacity, negotiable instruments, constitutional authority, business tort, product liability, bankruptcy, security regulations, anti-trust, Uniform Commercial Code, and principles of consumer protection. Formerly BA 251, Intro to Business Law I and BA 252, Intro to Business Law II.

**BUS 210 Marketing** 5 Credits
The relevance of marketing in the modern economy, topics include functions of marketing, customer understanding, TQM, opportunity analysis, and the marketing mix. Formerly BA 210.

**BUS 212 Marketing for Entrepreneurs** 5 Credits
The relevance of marketing in the modern economy, topics include functions of marketing, customer understanding, TQM, opportunity analysis, and the marketing mix. Taught in context of a Business Plan and Entrepreneurial project. Prerequisite: Instructor permission.

**BUS 215 Advertising** 5 Credits
Explores the elements of campaign planning and execution, the use of strategic research, setting objectives, targeting marketing and developing media ads. Course is organized around the framework that advertising is an integral part of communication and marketing. Online advertising will also be discussed. Formerly BA 215.

**BUS 217 Computer Software Applications** 5 Credits
Application of various software currently used in home and work environments. Learn how to determine the appropriate software to complete a given task and how to integrate the use of several software programs to complete a given task efficiently. Emphasis on the application of software principles in word processing, spreadsheets, databases, presentations, and file management. The second of two courses that aid in the preparation for the MOUS certification test. Students pursuing a career involving computer use are advised to take this course. Prerequisite: CS 110. Formerly BA 217.

**BUS 287 Retailing** 5 Credits
Focuses on the study of retail consumers and why, what, and when they buy. Topics include site location, merchandising mix, display, advertising, profit margin analysis, the merchandise plan (Open to Buy), markups/downs, stock turnover analysis, Reilly’s Law and Huff’s Law. Formerly BA 287.

**BUS 291 Cooperative Work Experience III** 2 - 5 Credits
Opportunity to work in jobs directly related to career choices. This formal training period is agreed upon by the student, employer, and instructor. Co-requisite: BUS 292. Formerly BA 291.

**BUS 292 Business Leadership Seminar III** 3 Credits
Gain and apply leadership skills to promote professional and personal development. Topics include successful job search and retention strategies and employment skills. Students are required to be a paid and active member of Phi Beta Lambda and complete assigned community service and personal enrichment hours. Formerly BA 292.

**BUS 293 Business Leadership Seminar VI** 3 Credits
Students select and perform a community service project. The students need to determine how the project will help the community and how many people will benefit. This activity shows the close correlation between community service and local business involvement. Formerly BA 293.

**BUS 297 Special Projects** 1 - 5 Credits
Project-oriented experiences in the area or applications not covered in the standard business curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience. Formerly BA 297.

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### Cardio-Pulmonary Resuscitation (CPR)

**CPR 044 CPR Training** .2 Credit
Provides the American Heart Association “Friends and Family” CPR training. This is basic CPR training offered for the general public and does not meet AHA healthcare provider requirements.

**CPR 045 Heartsaver CPR (Basic CPR)** .3 Credit
Provides instruction in CPR based on standards established by the American Heart Association. Instruction is provided in CPR basic skills and relief of foreign-body airway obstruction for the adult. This is basic CPR training offered for the general public and does not meet AHA healthcare provider requirements.

**CPR 051 Basic Life Support (BLS) for Healthcare Providers** .7 Credit
Designed for healthcare providers and provides CPR instruction based on standards established by the American Heart Association. Instruction is provided in: CPR skills for victims of all ages, use of airway adjuncts, the AED, and relief of foreign body airway obstruction. This course is intended for individuals who provide health care to patients in a wide variety of settings.

**CPR 052 BLS/CPR Instructor Training** .8 Credit
Provides the necessary knowledge and skills to facilitate BLS training adhering to the standards of the American Heart Association. The student must possess a current AHA Healthcare Provider card to enroll.

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Recommended: READ 088 or higher.

CHEM 105 Chemical Concepts w/out a Lab [NS] 5.0 Credits
Will investigate key chemical concepts and principles using one or more of the following themes: chemical advances in civilization, chemical processes in food preparation, chemistry of crime, chemistry of the environment, chemistry of soils and gardening.

CHEM 110 Chemical Concepts with Lab [NS] 5 Credits
A practical introduction to inorganic, organic, and biochemistry designed primarily for students in various health-related programs. The course meets general education lab science requirements. Lab work required. Prerequisites: MATH 74C; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly CHEM 101, Chemistry.

CHEM& 121 Introduction to Chemistry [NS] 5 Credits
Survey of inorganic chemistry for nursing and allied health sciences. Topics include atomic structure, bonding, periodicity, stoichiometry, gases, equilibrium, solution chemistry, acids, bases, buffers, and nuclear chemistry. Lab work required. Prerequisites: MATH 74C or instructor permission; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher; high school chemistry. Formerly CHEM 107, General Chemistry for Health Sciences.

CHEM& 122 Introduction to Organic Chemistry [NS] 5 Credits
A survey of organic chemistry. Topics include structure, function and chemistry of aliphatic and aromatic hydrocarbons, alcohols, ethers, carboxylic acids, amines, and related compounds; mechanisms, and stereochemistry. Lab work required. Prerequisite: CHEM& 121. Formerly CHEM 108, Organic Chemistry for Health Sciences.

CHEM& 123 Introduction to Biochemistry [NS] 5 Credits
A brief survey of biochemical principles. Topics include structure, function and chemistry for biomolecules, enzymatic catalysis, metabolic pathways, genetic processes, and biotechnology. Lab work required. Prerequisite: CHEM& 122. Formerly CHEM 109, Biochemistry for Health Sciences.

CHEM& 139 General Chemistry Prep [NS] 5 Credits
Survey of inorganic chemistry, without lab. Chem&139 is intended for science majors who have not had chemistry in high school and need the chemical and mathematical preparation required for the CHEM& 161, CHEM& 162, CHEM& 163 series. It can also be used to fulfill the AA degree requirement in Natural Science. Prerequisites: MATH 78E or instructor permission; appropriate placement score or grade of C or higher in ENGL 087 or permission of the Science Division Chair or designee. Recommended: READ 088 or higher.

CHEM& 161 General Chemistry I with Lab [NS] 5 Credits
Study of the composition, structure, and properties of matter and its changes for science, engineering. Lab work required. Prerequisites: Grade of C or higher in High School Chemistry (1 year) or CHEM&110 or higher and appropriate placement score of grade C or higher in ENGL 087; MATH 078E or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly CHEM 121, General Chemistry I.

CHEM& 162 General Chemistry II with Lab [NS] 5 Credits
Study of molecular polarity and states of matter, solution chemistry, kinetics, chemical equilibria, and acid/base chemistry. Prerequisite: CHEM&161. Formerly CHEM 122, General Chemistry II.

CHEM& 163 General Chemistry III with Lab [NS] 5 Credits
Study of aqueous equilibria, atmospheric chemistry, thermodynamics, electrochemistry, nuclear chemistry, coordination compounds, and organic chemistry. Prerequisite: CHEM&162. Formerly CHEM 123, General Chemistry III-Honors.

CHEM 199 Special Topics 1 - 5 Credits
Special Topics in chemistry is a variable credit class to allow students to have the opportunity to engage in independent research or explore special interests and topics. Prerequisite: Instructor permission.

CE 100 College Experience 1 - 3 Credits
Designed to help students develop strategies to adjust to the college experience.

CE 101 Intermediate College Experience 1 Credit
Designed to equip students with the skills necessary to make a successful transition to college. Students are given information regarding the various attitudes, behaviors, and choices essential for academic success, with a focus on strengthening the student’s repertoire of positive learning strategies. Topics include: learning styles and multiple intelligences, memory and brain development, learning techniques, personal finance, graduation requirements and planning for high school completion, goals, motivation and positive habit formation. Prerequisite: Instructor permission.

CE 110 Learning Strategies for College 1 - 5 Credits
Provides an overview of learning and motivation theories and methods that promote student efficiency in the classroom. Empowers students to become active, responsible, and successful learners. Topics and techniques include: memory and learning, note taking, exam preparation and test anxiety, reading and writing techniques, time management, goals clarification, learning style, concentration, self-awareness and personal responsibility. Upon completion, students will possess a clear understanding of the strategies required to meet their academic goals. Recommended: Enrollment in at least one course, pre-college or at the 100 level or above. Formerly PSY 100.

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COLLEGE EXPERIENCE - COMMERCIAL TRUCK DRIVING

CE 114 Long-term Financial Planning and Continuing Education  1 Credit
Course will provide the student with skills required for successful long-term financial planning. Students will become familiar with savings habits, influences on credit scores, capital planning, and other financial factors that will affect the individual in the long run. Students will learn the importance of retirement planning and the possibility of continuing education for self or potential children. Prerequisite: Must be fully enrolled in TRIO program and instructor permission.

CE 115 Personal and Family Budgeting  1 Credit
Course covers budgeting and financial planning at the micro/personal level. It will teach students how to identify shortcomings in income vs. expenses, how to allocate available funds for self-sustainability, familiarize the individual with cost-cutting strategies, and teach credit, credit card, and checking account management. Prerequisite: Fully enrolled in TRIO program and instructor permission.

CE 116 College Costs, Financing, and Procedures  1 Credit
Learn about the costs of college along with financing options and opportunities, the price gaps between two-year and public/private four-year institutions, rising costs of tuition and the importance of submitting the FAFSA in a timely manner. Learn to plan for such costs, how and where to search for diverse funding options, respective deadlines, and application procedures. Become acquainted with numerous options of repayment for federal and private student loans. Prerequisite: Fully enrolled in TRIO program and instructor permission.

Commercial Truck Driving

TRK 095 Flagger Training  0.6 Credit
Planning, traffic control, stopping distances, signs and sign placement, channelization and channelization devices, tapers, and rules of contact will be addressed. Course satisfies the state requirements to function as a flagger in the State of Washington.

TRK 101 CDL Training  1 - 12 Credits
Designed to accommodate for students’ work and/or class schedules. Provides instruction for individuals requiring the commercial driver’s license. Provides training to gain Class A CDL and various endorsements. Prerequisites: Pass DOT physical and mandatory drug test; have a social security card and satisfactory driving record for past five years; 18 years of age or older; and instructor permission.

TRK 110 Truck Driver Training  12 Credits
Entry-level lecture training for long haul truck driving jobs and commercial driving license testing. Topics include basics of trucking industry and trucking equipment: inspection of equipment, mechanical components, brake adjustment, preventative maintenance, servicing, defensive driving techniques, cargo loading, securing load, documentation, map reading, DOT log books, trip planning, accident and fire prevention, reporting, hazardous material transportation and documentation. Prerequisites: Pass DOT physical and mandatory drug test, have a social security card and have a satisfactory driving record for past five years.

TRK 120 Truck Driver Training - Lab  1 - 10 Credits
Laboratory training and experience for entry-level long haul truck drivers and commercial driving license testing. Graduates obtain Class A CDL License with endorsements for doubles and triples, tankers, hazardous material and no air brake restrictions. Behind-the-wheel practice includes backing techniques, proper cornering, up and down hill maneuvers, space and speed management, coupling/uncoupling, city and highway driving maneuvers. Co-requisite: TRK 110.

TRK 125 Bus Endorsement Training  1 Credit
Laboratory training and experience for entry-level passenger and school bus drivers and Commercial Driver’s License testing. Provides training to gain your passenger (P1) School Bus Endorsement. Prerequisite: Instructor permission.

TRK 191 Cooperative Work Experience  1 - 18 Credits
Advanced on-the-job-training for entry-level long-haul truck driving jobs. Truck drivers in the advanced certificate program are on the road 50 to 70 hours (approximately half of which is driving time, and half of which is navigating time). Behind the wheel practice includes backing techniques, proper cornering, up and down hill maneuvers, space and speed management, coupling/uncoupling, city and highway driving maneuvers. Training on cargo loading, securing and documentation, map reading, DOT logbooks, trip planning, accident and fire prevention and reporting, hazardous material transportation and documentation. Prerequisites: TRK 110 and 120.

TRK 192 Cooperative Seminar  2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. These learning skills include memory, concentration, time management, textbook reading, and exam preparation. Human relations topics include group dynamics, employee and management roles, and conflict resolution. Co-requisite: TRK 191.

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### COMMERCIAL TRUCK DRIVING - COMPUTER SCIENCE

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>TRK 199</td>
<td>Special Topics</td>
<td>1 - 10</td>
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<tr>
<td>TRK 297</td>
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**Communication Studies**

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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>CMST 102</td>
<td>Interpersonal Communication</td>
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<td>CMST 105</td>
<td>Oral Interpretation</td>
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<td>CMST 119</td>
<td>Digital Media Journalism</td>
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<td>CMST 201</td>
<td>Intercultural Communication</td>
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<td>CMST&amp; 220</td>
<td>Public Speaking</td>
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**Computer Science**

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<td>CS 100</td>
<td>Introduction to Microcomputers</td>
<td>5</td>
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<tr>
<td>CS 104</td>
<td>Campus Computer Survival</td>
<td>2.0</td>
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<tr>
<td>CS 105</td>
<td>Intermediate Computer Concepts</td>
<td>5</td>
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<tr>
<td>CS 110</td>
<td>Introduction to Computers and Applications</td>
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**CS 115 Introduction to Computer & Information Technology**  
5 Credits  
Provides an in-depth study of computer technology including concepts, terminology, history, usage, ethics, hardware, and software. Keyboarding beneficial. Recommended: CS 100 with a grade of B or higher.

**CS 120 Networking Using Internet Technologies**  
5 Credits  
Explore communications using Internet technologies, both wired and wireless media. Topics include the variety of access devices such as cell phones, PDAs, laptops and desktop computers. Focus will be on access, personal security, browsing, file sharing, e-mail, and HTML (XML). Construction of a basic web page using HTML will close out course. Learn how ftp and http help move information.

**CS 121 Problem Solving with Programming**  
5 Credits  
Introduction to structured problem solving and computer programming. Topics include logic, programming structure, data types, and problem solving skills. A visual environment will be used to practice programming concepts.

**CS 125 Operating Systems**  
5 Credits  
A comparative analysis of several computer operating systems with a concentration on those used in microprocessors, including server and client operating systems. Introduction to the internal workings of Microsoft Windows, Linux/Unix, and Macintosh operating systems. Recommended: CS 115.

**CS 130 PC Support and Maintenance I**  
5 Credits  
Students will learn to add and remove components, build new systems, troubleshoot and repair hardware, and identify software issues. Prerequisite: CS 115.

**CS 131 Computer Science I C++**  
5 Credits  
Introduction to computer science principles and concepts including algorithm, data structures, and C++ programming. Prerequisite: Grade of C or higher in MATH 78E. Recommended: CS 121.

**CS 140 JavaScript Specialist**  
5 Credits  
This course prepares a student for the JavaScript Specialist Certification Exam. Topics include Use JavaScript statements to control program flow, the use of JavaScript Document Object Model (DOM). Using JavaScript language objects and create expressions, using JavaScript to develop interactive XHTML forms.

**CS 141 Computer Science I JAVA**  
5 Credits  
Introduction to programming in the Java programming languages. Topics include structured programming concepts, functions, arrays and pointers, and object oriented concepts. Recommended: CS 121.

**CS 142 Perl Programming**  
5 Credits  
Perl Specialist CIW curriculum teaches students how to fully utilize the Perl programming language. Students learn the Perl syntax, the basics of using regular expression, how to use Perl data types, and how to access and manipulate files. Students are also introduced to database connectivity and debugging techniques.

**CS 220 Digital Imaging Foundations**  
5 Credits  
Exposure to the history and future of global communication and how digital technologies are being used. Students will explore career opportunities in digital communication fields. Students will be introduced to software used to create digital art through the use of software packages such as Photoshop, Illustrator, Flash, InDesign and Dreamweaver.

**CS 221 Introduction to Digital Audio / Video**  
5 Credits  
Learn video technologies, basic equipment operation, video composition, basic lighting and audio, production planning, and visual storytelling. Format can include group projects or personal projects involving post-production editing. Topics include creation of digital video productions for inclusion in multimedia and Web applications such as QuickTime and creation of video productions using digital non-linear editing technology.

**CS 222 Desktop Publishing (InDesign)**  
5 Credits  
Designed to use advanced applications utilizing all components of desktop publishing. Emphasis on creation of student projects including: newsletters, business identity, brochures, and promotional materials. Principles of layout and design will be practiced.

**CS 223 Computer Layout and Design (Photoshop)**  
5 Credits  
Develops beginning skills using raster-based images. Learn to apply these skills in developing on-screen, multimedia, and Web applications using imaging manipulating software. Introduces the techniques, technology, and theory of raster (bitmapped) in web, multimedia, digital video, and animation applications. Recommended: CS 220.

**CS 224 Computer Illustration (Illustrator)**  
5 Credits  
Introduces the techniques, technology, and theory of vector digital images in web, multimedia, digital video, and animation applications. Provides fundamental skills in visual communication, screen design, and typography. Students learn to apply these skills to the development of on-screen, multimedia, and Web applications using programs like Illustrator or similar vector software. Recommended: CS 220.

**CS 225 Digital Design From A Gaming Perspective**  
5 Credits  
Observe popular commercial game title and attempt to identify the factors that facilitate elements that are interesting from a learning perspective. Focusing on the digital construction of game backgrounds. Students will create their own game as a final project.

**CS 226 Web Design Specialist I**  
5 Credits  
The Web Design Specialist course is an introduction to Web page design and development. Addresses issues concerning design and publishing Web sites. Including Web Site Development Essentials (such as the site development process, customer expectations, and ethical and legal issues in Web development), Web Design Elements (such as aesthetics, the site user’s experience, navigation, usability and accessibility).
CS 227 Web Design Specialist 5 Credits
The Web Design Specialist II course teaches basic Web technologies (such as basic Hypertext Markup Language [HTML]), Extensible HTML [XHTML] also students will work with popular production tools such as Microsoft Expression Web, and Adobe Dreamweaver.

CS 228 Website Design and Construction II 5 Credits
Designed to give proficiency in designing website utilizing: website templates, forms, rollovers, and basic animations and database-driven pages.

CS 229 Dynamic Website Design with PHP MySQL 5 Credits
Provides knowledge and real-world applications about building interactive web sites. Students will learn how to build ecommerce interactive websites. Languages will include but will not be limited to: PHP, JSP and ASP.NET.

CS 230 Visual Basic Programming 5 Credits
Introduction to programming in Microsoft Visual Basic. Includes forms and controls, properties events and methods, menus, control statements and data structures, control arrays, and file processing. Recommended: CS 121.

CS 231 Application Development 5 Credits
Study of advanced word processing procedures and techniques using a case-study, project-based approach.

CS 235 Introduction to Database Design and Theory 5 Credits
In-depth study of database theory and concepts including data modeling, database design, normalization, and data integrity and security. Includes a survey of one or more modern DBMS and its underlying query language. Recommended: CS 110.

CS 240 Application Integration using VBA 5 Credits
Focuses on the functions of MS Office applications, integrating uses with Visual Basic for Applications.

CS 241 Programming II (JAVA/C++) 5 Credits
Introduction and implementation of data structures including queues, stacks, trees and linked lists, using the Java or C++ programming language. Topics include iterative and recursive uses in sorting and searching routines.

CS 242 Advanced Software Development 5 Credits
Use and investigate new software used by industry. Special attention will be given to software applications and operation. Students will develop and present a final project by developing a software systems analysis, creating an end product, with documented output, or system training and training materials. Students will also research relevant related specific topics and debate uses of different applications and computing issues.

CS 245 Advanced Database Development 5 Credits
Advanced study of database construction and operation. Topics include filtering, customized menus, and an introduction to programming. Recommended: CS 121.

CS 246 SQL and Relational Database Programming 5 Credits
Database design concepts are applied in programming environment. Focuses on learning and applying the SQL programming language to efficiently define, access, update and retrieve information from a database in a server based environment.

CS 250 Site Development Associate 5 Credits
The Site Development Associate course teaches students essential Web page development skills. This course teaches students to develop Web sites using HTML5 and CSS. Students learn to write code manually, as well as use graphical user interface (GUI) authoring tools. They also insert images, create hyperlinks, and add tables, forms, video and audio to Web pages, as well as use HTML5 Application Programming Interfaces (APIs) to extend the functionality of Web pages. Other topics include validating HTML code, recognizing the importance of search engine optimization (SEO), using style sheets extensively to format Web page content, and implementing fundamental design concepts. Throughout the course, students learn how Web sites are developed as managed projects. They also identify e-commerce solutions and relate Web site development to business goals.

CS 260 Unix/Linux Operating Systems 5 Credits
Introduction to multi-user and multi-processing operating systems through a study of the Linux/UNIX operating system as implemented on the microcomputer. Recommended: CS 125.

CS 265 CCNA 1 5 Credits
Provides an in-depth description of the IP network-addressing scheme, including sub-netting, and the design of IP addressing schemes for enterprise-wide networks. Wiring techniques are also covered. This is the first course in the CCNA sequence.

CS 266 CCNA 2 5 Credits
Introduction to the configuration of Cisco routers using the proprietary IOS operating system. This is the second course in the CCNA sequence.

CS 267 CCNA 3 5 Credits
In-depth coverage of the configuration and troubleshooting of Cisco routers in enterprise-wide networks. This is the third course in the CCNA sequence.

CS 268 CCNA 4 5 Credits
The second part of a two-course series on the configuration and troubleshooting of Cisco routers in enterprise-wide networks.

CS 275 Windows Client 5 Credits
Overview of the past, present and future Microsoft Operating Systems, including the latest operating systems. Students will learn to install and customize the Windows environment. Other topics include file management, how to use hidden utilities, memory management to speed performance, registry configuration, partial and full back up of operating system and files, and a look at 3rd party tools to maximize the windows experience. Students will receive their own licensed copy of XP Professional and Vista to use at home. Recommended: CS 110.
CS 276 Windows Server 5 Credits
Introduction to the management of a Windows Server. Topics include installation and use of management tools (including Dynamic Host Configuration Protocol, Windows Internet Name Service, and Remote Access Service), NWLink transport protocol, and integration into a NetWare network.

CS 277 Fund of Network Security 5 Credits
Explores blocking attacks on computer network systems. Study of the white hat hackers compared to the black hat crackers. Topics include viruses, Trojan programs and copyright infringements, bandwidth problems, and networking issues.

CS 278 Windows Server Infrastructure 5 Credits
Windows Server network infrastructure. Intended for systems administrator and systems engineer candidates who are responsible for implementing and managing server networking technologies. These tasks include implementing routing, implementing and managing Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; configuring a network access infrastructure by configuring the connections for remote access clients, and managing and monitoring network access.

CS 280 Novell SUSE Server 5 Credits
Provides experience in designing and building a local area network. Includes installation of the NOS (SUSE Linux), user accounts groups, security, application software, printers, menus, and accounting.

CS 290 Systems Analysis and Design (Critical Thinking) 5 Credits
Apply problem-solving, system analysis, and rapid application development techniques to design appropriate hardware/software solutions to meet various end user requirements. Recommended: CS 121.

CS 291 Cooperative Work Experience II 1 - 5 Credits
Opportunity to work in jobs directly related to the computer technology industry. This formal training period is agreed upon by the student, employer, and instructor.

CS 292 Cooperative Seminar II 1 - 3 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships.

CS 297 Special Projects 1 - 5 Credits
Project-oriented experiences in the area or applications not covered in the standard computer technology curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.

Cosmetology

COSM 111 Principles and Procedures of Cosmetology I 1 - 11 Credits
Introduction and overview of all aspects of cosmetology. Topics include bacteriology, sanitation, sterilization, draping, basic haircuts and trimming, shampoos, rinses, finger waves, pin curls, rollers, manicuring, facials, movements, permanent waves and hair color. Emphasizes safety and first aid in all instruction. Prerequisite: Instructor permission.

COSM 112 Practical Application I 1 - 11 Credits
Introduction to the basic services of cosmetology. Practice in basic shampoos, rinses, haircuts, trimming, finger wave, roller, pin curl, manicuring, basic permanent wave, four different types of perms, introduction to color, and safety/sanitation. Prerequisite: Instructor permission.

COSM 121 Principles and Procedures of Cosmetology II 1 - 11 Credits
Introduction to basic services of cosmetology. Topics include introduction to hair coloring and lightening, scalp treatments and hair analysis, diseases and disorders of skin and scalp, skin care, trimming of facial hair (including beard and mustache, eyebrow, ear and nose hair trim), dry styling, and first aid. Emphasizes safety and sanitation measures in all instruction. Prerequisite: COSM 111.

COSM 122 Practical Application II 1 - 11 Credits
Continued practice in basic cosmetology skills on mannequins and models. Topics include hair color, lash and brow tint, bleaching, scalp treatments, thermal styling, skin care (facials), dry styling, permanent waving, temporary removal of superfluous hair, razor cutting, safety, and review. After reaching Level 2 in services and Level 3 in safety/sanitation, the student may begin basic operations under close supervision of an instructor in the lab area provided for patrons. Prerequisite: COSM 112.

COSM 131 Intermediate Principles and Procedures I 1 - 11 Credits
Intermediate instruction in hair coloring (dimensional), nail diseases/disorders, nail repair, styling aids, safety and sanitation, hair lightening and bleaching, blow drying, chemical relaxing, with an emphasis on safety and sanitation to be included in all instruction. Prerequisite: COSM 121.

COSM 132 Practical Application III 1 - 11 Credits
Continued work to complete the required levels of performance, hour and quarter requirements, and safety/sanitation measures. Prerequisite: COSM 122.

COSM 199 Special Topics 1 - 10 Credits
Study and train to meet established local needs in the cosmetology industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

COSM 241 Intermediate Principles and Procedures II 1 - 11 Credits
In-depth study of the hair structure, diseases and disorders, skin care compresses, safety, bones, nerves and muscles of face and scalp, pedicures, and exam review book. Prerequisite: COSM 131.

COSM 242 Practical Application IV 1 - 11 Credits
Continue to work in the program to complete five regular quarters, one summer quarter, and job performances safely at Level III and Level IV as required by WWCC. Prerequisite: COSM 132.

For the most current information see: www.wwcc.edu
# COSMETOLOGY - CULINARY

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>COSM 251</td>
<td>Advanced Principles and Procedures I</td>
<td>1 - 11 Credits</td>
<td>Advanced work in the cosmetology program. Topics include skin care - including disease &amp; disorders, artificial hair, chemical relaxing, hair pressing, safety, superfluous hair removal, pH value - the basic chemistry, and complete review, including safety and sanitation. Prerequisite: COSM 241.</td>
</tr>
<tr>
<td>COSM 252</td>
<td>Practical Application V</td>
<td>1 - 11 Credits</td>
<td>Continue to independently and safely practice cosmetology methods at level IV. This course is designed to allow students complete the remainder of the degree requirement of 1600 hours and five quarters plus one summer quarter, as required by state law and WWCC respectively. Prerequisite: COSM 252.</td>
</tr>
<tr>
<td>COSM 270</td>
<td>Practical Application VI</td>
<td>1 - 11 Credits</td>
<td>Work in the clinic area to complete the required number of hours and levels of services, safety, sanitation, and skills as required by state law and WWCC. Prerequisite: COSM 252.</td>
</tr>
<tr>
<td>COSM 281</td>
<td>Cadet Instructor Training</td>
<td>1 - 15 Credits</td>
<td>Training in management and laboratory supervision covering the application of teaching techniques in practical classroom and laboratory services, dispensary inventory and maintenance, and reception area management. Emphasis on sanitation of tools, equipment, and work areas as well as safe practices in storage, mixing, and use of chemicals. Must have a minimum two years of successful work experience and hold a current Cosmetology License in the State of Washington. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>COSM 297</td>
<td>Special Projects</td>
<td>1 - 18 Credits</td>
<td>Project-oriented experiences in the area or applications not covered in the standard cosmetology curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.</td>
</tr>
<tr>
<td>COSM 299</td>
<td>Leadership</td>
<td>1 Credit</td>
<td>Encourage students to develop awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.</td>
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## Criminal Justice

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<tr>
<td>CJ&amp; 110</td>
<td>Introduction to Criminal Justice [SS]</td>
<td>3 Credits</td>
<td>Introduction to the ever-evolving world of criminal law in the United States. Describes the origin and structure of criminal law. This course covers topics ranging from the victim’s rights, criminal defenses, criminal prosecution and definitions of crime guidelines. Defines the difference between misdemeanors and felonies. Formerly CJ 103, Intro to Criminal Law. Recommended: READ 088.</td>
</tr>
<tr>
<td>CJ&amp; 112</td>
<td>Criminology [SS]</td>
<td>5 Credits</td>
<td>The study of deviant behavior as it relates to the definition of crime: crime statistics, theories of crime causation, crime typologies. Introduction to the impact of crime, limits of criminal law, and society’s reaction to criminal behavior. Recommended: READ 088. Formerly CJ 106, Criminology.</td>
</tr>
<tr>
<td>CJ 199</td>
<td>Special Topics</td>
<td>1 - 5 Credits</td>
<td>Study and train to meet established local needs in the criminal justice industry, supplemental to courses currently offered. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>CJ 202</td>
<td>Crime and Delinquency [SS]</td>
<td>5 Credits</td>
<td>The development of criminal justice responses to formal handling of juveniles. Examination of the legal status of juvenile offenders and other related special conditions involving juveniles in crime and delinquency. Recommended: READ 088.</td>
</tr>
<tr>
<td>CJ 205</td>
<td>Principles of Investigation and Evidence</td>
<td>5 Credits</td>
<td>Survey of fundamental techniques as they apply to specific criminal investigations. Examines the basic principles of the law of criminal evidence with emphasis on the role of the investigator in collecting, preserving, and introducing evidence in court. Prerequisite or Co-requisite: CJ&amp; 101. Recommended: READ 088.</td>
</tr>
<tr>
<td>CJ 210</td>
<td>Working in the Juvenile Justice System</td>
<td>5 Credits</td>
<td>Instruction and simulated experiences designed to develop a basic understanding of the multiplicity of roles the juvenile justice system is expected to carry out. Examines the four main elements: courts and related processes, detention centers, institutions, and group homes. Explores the administration/authority granted by the legislature to manage each element. Also examines the duties and qualifications of juvenile justice workers in the state of Washington. Recommended: READ 088.</td>
</tr>
<tr>
<td>CJ 297</td>
<td>Special Topics</td>
<td>1 - 5 Credits</td>
<td>Project-oriented experiences in the area or applications not covered in the standard criminal justice curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.</td>
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## Culinary Arts

<table>
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<tbody>
<tr>
<td>CA 110</td>
<td>ServSafe</td>
<td>3 Credits</td>
<td>Introduction to food production policies that will focus on current regulations, best practices and science-based information. Topics include Hazard Analysis of Critical Control Points (HACCP) procedures, kitchen safety, and facility sanitation. Students will take the National Restaurant Association ServSafe Examination upon completion of the course. Prerequisite: Instructor permission.</td>
</tr>
</tbody>
</table>

For the most current information see: www.wwcc.edu
CA 111 Storeroom Operations  3 Credits
Provides an introduction to operations of storerooms. Students will learn how to inventory, order and receive products for foodservice operations. They will be taught basic culinary math principles and identify various products used in production of food. Prerequisite: Instructor Permission

CA 112 Introduction to the Culinary Arts  10 Credits
Provides an introduction to the hospitality and culinary arts profession through the History, Terminology and current Career Options. Classical knife skills are practiced and produced along with basic butchery of meats and seafood. Learn the techniques of classical and contemporary soups, stocks, mother sauces and their derivates. Roux based sauces, emulsions, purees, stock preparations and a variety of soups. Prerequisite: Instructor permission.

CA 120 Culinary Arts Methods  9 Credits
Develop basic skills and apply the principles of food safety and sanitation, workplace safety, food preparation, and cooking methodologies in a kitchen lab setting. Produce food products through various moist and dry heat cooking methods. Prerequisite: CA 112

CA 121 American Regional Cuisine  4 Credits
Practice techniques for appetizers, salads, desserts, braidings, batters, smoked, roasted and fried foods in the context of regional American specialties. Regions include Coastal areas of the continental US, the Caribbean, Hawaii and the Pacific Northwest. Students will explore regional variations, food ingredients and the impact of culture, geography and ethnicity on regional cooking styles. Prerequisite: CA 120.

CA 122 Food, Farmers and Culture  4 Credits
Explores the relationship between food and culture. It examines the questions of what, when and where we eat in the context of the cultural systems which answer them. Work within our own greenhouse on production of food products, understanding seasonal growing patterns within the Northwest. Examination of culinary arts in context with the global food supply. Explores food sustainability issues, ethics, ecology, farming techniques, slow food, organics and their impact on food choices and selection by working chefs within the foodservice industry.

CA 130 Introduction to Baking  6 Credits
Introduction to modern baking and pastry arts. It will provide the theoretical and technical foundation for the entire program, covering kitchen safety and sanitation, knives and equipment, and weights and measures. Students will be taught the proper use of basic ingredients and mixing methods while preparing simple yeast breads, quick breads, cookies, pies and tarts.

CA 131 Advanced Baking and Pastry  5 Credits
Building on information and skills developed in Introduction to Baking, this course will provide students with a thorough understanding of advanced baking techniques. Artisan breads, including sour dough, baguettes, and ciabatta will be covered, as well as proper preparation of Danish, Croissant, puff dough, petit fours and strudel. Prerequisite: CA 130

CA 132 Plated Desserts  2 Credits
Examination of various methods for the design and plating of individual desserts. Students will learn techniques to enhance plate presentations, combine plating elements and balance flavors to reveal contemporary approaches to dessert service. Prerequisite: CA 131

CA 133 Food and Wine/Beverage  4 Credits
Introduction to the wine industry and grape varieties. Focus is on understanding the flavor components of different wines/ beverages and their compatibility with various food offerings. Students will learn about tasting through an examination of different olive oils and vinegars. Students will practice menu development and food pairing in class exercises. This class is open to students under the age of 21 and students who do not drink alcoholic beverages.

CA 191 Cooperative Work Experience I  1 - 15 Credits
Opportunity to work in jobs directly related to the culinary arts industry. This formal training period is agreed upon by the student, employer and instructor. Prerequisite: Instructor permission. Co-requisite: CA 192.

CA 192 Cooperative Seminar I  2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: CA 191.

CA 240 French and Mediterranean Cooking  4 Credits
Learn and practice techniques for appetizers, salads, souffles, pasta, complex sauces, saute, frying, roasting, broiling, poaching and grilling in context with Classical French and Mediterranean specialties. Regions include France, Italy, Spain, Middle East and North Africa. Prerequisite: CA 120.

CA 241 Asian Cooking  4 Credits
Learn techniques and cooking methods for a variety of dishes from regions throughout Asia. Students will explore both traditional and contemporary applications for various ethnic dishes from these regions. Prerequisite: CA 120.

CA 242 Nutritional Cooking  4 Credits
Learn healthy techniques and cooking methods for a variety of dishes from regions throughout the world. Develop an understanding of the food pyramid, the values of calories from various sources and be able to run nutritional analysis on recipes. Prerequisite: CA 120.

CA 243 Food and Beverage Management  3 Credits
Designed to familiarize students with operational, marketing and managerial aspects of food and beverage management as well as their consequent managerial, marketing and cost control implications with emphasis on decision-making.
CA 250 Garde Manger  9 Credits
Learn techniques of cold and hot food preparation in buffet and catering applications, including appetizers, canapés, pate, sausages, terrines, buffet salads, buffet design, lay-out and execution and menu planning. Various curing, brining and smoking techniques in production of bacon and other cured meat products.

CA 251 Latin American Cooking  2 Credits
Practice techniques for appetizers, salads, desserts, bárbieres, smoked, roasted and fried foods in the context of regional Mexico and other Central American countries, exploring regional variations, food ingredients and the impact of culture, geography and ethnicity on regional cooking styles. Prerequisite: CA 120

CA 252 Culinary Trends and Concepts  2 Credits
Practice techniques of sous vide, molecular astronomy and food for photography. Prerequisite: CA 120.

CA 260 Menu Development  3 Credits
Analysis of menu development for food service operations will be discussed. Focus on menu development, descriptions, layout, design and pricing with regard to sales mix and station balance. Students will also create and critique menus for the dining room with emphasis on concept, clarity, cost, price and efficiency. Prerequisite: CA 112. Co-requisite: CA 261 & CA 262.

CA 261 A la Carte Cooking  8 Credits
Develop basic skills and apply the principles of a la carte cooking for the restaurant. Students will create the menu, order food products to budget, prepare par levels of products to support menu of functioning restaurant. They will work through each station in the kitchen through the course. Prerequisite: CA 120. Co-requisite: CA 260 & CA 262.

CA 262 Service Management  4 Credits
Provides an introduction to basic table service principles which includes table settings, order taking, serving methods and serving sequences. Students will learn how to control inventory, merchandise products and services, and manage costs while assuring high quality service to all customers. Co-requisite: CA 260 & CA 261.

CA 291 Cooperative Work Experience II  1 - 15 Credits
Opportunity to work in jobs directly related to the culinary arts industry. This formal training period is agreed upon by the student, employer and instructor. Prerequisite: Instructor permission. Co-requisite: CA 292.

CA 292 Cooperative Seminar II  2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: CA 291

DANCE 102 Jazz and Funk Dance [PE]  1 Credit
This class is taught as a beginning and intermediate level dance course with no previous experience required. Class emphasis will be focused on understanding correct jazz terminology, movement, body placement, muscle development, and flexibility. Techniques will include hip hop, contemporary and theatre jazz.

DANCE 103 Swing Dance I [PE]  1 Credit
Swing dance (commonly known as the jitterbug or the shag) is an energetic couples style of social dance, made popular by the swing music of the 1940’s. No previous experience or partner is needed.

DANCE 110 Jazz II [PE]  1 Credit
Designed for intermediate dancer. Previous beginning jazz or ballet is required.

DANCE 111 Social/Ballroom Dancing [PE]  1 Credit
Introduction to several different dance styles including the Foxtrot, Cha Cha, Swing, Waltz, and Rhumba.

DANCE 112 Western/Line Dance [PE]  1 Credit
Learn different western line dances (done without a partner) and western swing (with a partner).

DANCE 164 Dance Choreography [PE]  2 Credits
Emphasis on learning and practicing the fundamentals of rhythm and dance choreography. Students will develop, perform, and produce individual and group pieces for a dance theater production. Previous dance experience required.

DANCE 165 Dance Production I [PE]  2 Credits
Modern dance techniques with rehearsal and performance of student and faculty repertory, with a dance production. Prerequisite: Instructor permission.

DANCE 168 Dance Production III [PE]  2 Credits
Modern techniques with Modern Jazz Combinations. Previous dance experience required. Prerequisite: Instructor permission.

DANCE 169 Choreography II [PE]  2 Credits
Modern techniques with Modern Jazz Combinations. Previous dance experience required. Prerequisite: Instructor permission.

DANCE 170 Technical Aspects of Dance Production [PE]  2 Credits
Technical components of a dance production to include costuming, lighting and set design, stage and house managing, sound, publicity, and makeup are explored.
Diesel Technology

DT 151 Shop Fundamentals/Forklift Training 1 - 9 Credits
Designed to introduce, perfect, and evaluate basic safety and shop skills necessary for successful completion of the Diesel Mechanics program. Consists of instruction and shop performance exercises in safety; hand and machine tool operation, use, and maintenance; hardware identification; and other basic shop skills. Forklift driver certification is also taught. Students must be seeking a certificate or degree in Diesel Equipment Mechanics. Prerequisite: Instructor Permission.

DT 162 Machinery Repair I 10 Credits
Controlled laboratory experiences with static and live projects enhance instruction in engines, power trains, electrical and air conditioning. Involves application of theory and skills associated with academic and skill instruction. This class will emphasize ASE/NATEF competency completion. Students must be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 163 Machinery Repair II 8 Credits
Controlled laboratory experiences with static and live projects enhance instruction in engines, power trains, electrical and air conditioning. Involves application of theory and skills associated with academic and skill instruction. Students must be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 168 Advanced Mechanics 1 - 10 Credits
Study of specialized machinery. Study and skill gained through working on specialized equipment such as farm equipment, logging equipment, trucks, and heavy equipment. This class will emphasize ASE/NATEF competency completion. Prerequisite: Instructor permission.

DT 174 Swing Dance II [PE] 1 Credit
Swing dance (commonly known as the jitterbug or the shag) is an energetic couples style of social dance, made popular by the swing music of the 1940s. No previous experience or partner is needed.

DT 177 Advanced Jazz Dance [PE] 2 Credits
Designed for the advanced dancer. Previous dance experience and instructor permission required. Intensive study of advanced skills, techniques and choreography of various jazz, hip hop and funk styles. Prerequisite: Instructor permission.

DT 178 Hip Hop I [PE] 1 Credit
Hip hop style similar to that seen on current music videos will be the style taught in this course. Students will learn and practice hip hop/Funk fundamentals and combinations. Individual skills, floor work and partner work will be emphasized. Combinations and dance will be practiced and performed to current Rap and R & B music. Street attire and comfortable athletic shoes are appropriate. No previous experience required.

DT 179 Hip Hop II [PE] 1 Credit
An intermediate (advanced) level dance course to strengthen hip-hop movement and combinations. Hip hop styles similar to those seen on music videos will be taught. Prerequisite: DANCE 180 or instructor permission.

DT 180 Suspension and Alignment 5 Credits
Study of suspensions as found on medium and heavy duty vehicles. Alignment of axles and wheels is also covered. Topics include Alignment principles and terminology, Spring suspensions, Air suspensions, Beam suspensions, Tire wear identification, and wheel safety. This class will emphasize ASE/NATEF competency completion. Students must be seeking a degree or certificate in Diesel Equipment Mechanics.

DT 181 Engines I 1 - 14 Credits
In-depth study of diesel engines, including theory of operation, testing and rebuilding. Students must be seeking a certificate or degree in Diesel Equipment Mechanics. Prerequisite: Instructor permission.

DT 183 Electronics I 5 Credits
Theory, troubleshooting, and repair of electrical systems are covered. Topics include charging, starting, ignition, and accessory electrical systems. Students must be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 184 Drive Trains 1 - 5 Credits
Study of the various components found in the power train system. Topics include theory, operation, troubleshooting, and repair of clutches, transmissions, torque converters, drive lines, differentials, and power take-off devices. This class will emphasize ASE/NATEF competency completion. Students must be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 185 Advanced Mechanics 1 - 10 Credits
Study of specialized machinery. Study and skill gained through working on specialized equipment such as farm equipment, logging equipment, trucks, and heavy equipment. This class will emphasize ASE/NATEF competency completion. Prerequisite: Instructor permission.

DT 187 Heating and Air Conditioning 5 Credits
Heating and air conditioning on medium and heavy duty vehicles. Topics include theory, components, refrigerants, servicing and troubleshooting. Students must be seeking a degree or certificate in Diesel Equipment Mechanics.

DT 194 Preventive Maintenance 1 - 5 Credits
Study of preventive maintenance on medium and heavy duty vehicles. Topics include truck classifications, P.M. programs, Out of service criteria, wheels and rims, frame and cross-members, trailer maintenance, and coupling devices. Students must be seeking a degree or certificate in Diesel Equipment Mechanics.
DT 191 Cooperative Work Experience 1 - 21 Credits
Opportunity to work in jobs directly related to the diesel mechanics industry. This formal training period is agreed upon by the student, employer, and instructor. This class will emphasize ASE/NATEF competency completion. Prerequisite: Instructor permission.

DT 192 Cooperative Seminar 2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: DT 191.

DT 199 Special Topics 1 - 10 Credits
Study and train to meet established local needs in the diesel mechanics industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

DT 266 Advanced Equipment Repair I 10 Credits
On-campus job shop experience. Students work on equipment with a student service manager and under the supervision of an instructor. Student must have completed at least two quarters of Diesel Equipment Mechanics and be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 267 Advanced Equipment Repair II 10 Credits
On-campus job shop experience. This class will emphasize ASE/NATEF competency completion. Students work on equipment with a student service manager and under the supervision of an instructor. Student must have completed at least two quarters of Diesel Equipment Mechanics and be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 268 Advanced Equipment Repair III 1 - 20 Credits
On-campus job shop experience. Must have completed at least two quarters of Diesel Equipment Mechanics and be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 280 Brakes and Air Systems 1 - 5 Credits
An in-depth study of air and hydraulic brake systems as found on medium and heavy duty vehicles. Topics include air and hydraulic systems, air drum brakes, air disc brakes, hydraulic drum brakes, hydraulic disc brakes, air system schematics, air valves and controls, air compressors and driers, troubleshooting and repair of brake systems. Students must be seeking a degree or certificate in Diesel Equipment Mechanics.

DT 281 Engines Advanced 1 - 5 Credits
A detailed study and analysis of mechanical and electronic diesel injection systems. This class will emphasize ASE/NATEF competency completion. Students must be seeking a degree or certificate in Diesel Equipment Mechanics.

DT 283 Electronics II 1 - 5 Credits
A study in medium and heavy duty vehicle electrical systems. Topics include electronic signals, microprocessors, integrated circuits, connector and terminal identification and repair, and multiplex systems. This class will emphasize ASE/NATEF competency completion. Students must be seeking a degree or certificate in Diesel Equipment Mechanics.

DT 284 Hydraulics 1 - 5 Credits
A study of hydraulic systems as found on mobile equipment. Course includes theory, operation, troubleshooting and service of pumps, cylinders, valves, motors, controls and accessories found on mobile hydraulic systems. Schematics and system design are also discussed. Students must be seeking a certificate or degree in Diesel Equipment Mechanics.

DT 297 Special Projects 1 - 15 Credits
Project-oriented experiences in the area or applications not covered in the standard diesel mechanics curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.

DT 299 Leadership 1 - 10 Credits
Encourage students to develop awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.

DRMA& 101 Introduction to Theatre [H] 5 Credits
Introduction to the study of theatre. Students will watch film and live performances of theatrical productions, read representative dramatic literature, and learn the history, theory, and practice of the theatrical arts - playwrights, acting, design and directing. By reading, viewing, and discussing, students will enhance their appreciation of the nature and place of theatre in contemporary culture. Formerly THEA 101, Theatre Appreciation.

DRMA 117 Technical Theatre I 1 - 5 Credits
The current play production is used as a lab course with practical application covering fundamentals of scene construction, costuming, scene painting, sound and lighting operation. Formerly THEA 117.

DRMA 118 Technical Theatre II 1 - 5 Credits
The current play production is used as a lab course with practical application covering fundamentals of scene construction, costuming, scene painting, sound and lighting operation. Formerly THEA 118.

DRMA 119 Technical Theatre III 1 - 5 Credits
The current play production is used as a lab course with practical application covering fundamentals of scene construction, costuming, scene painting, sound and lighting operation. Formerly THEA 119.

DRMA 151 Beginning Acting I [HP] 3 Credits
Introduction to acting techniques and beginning characterization through improvisation. Student required to furnish personal rehearsal clothes. Formerly THEA 151.

For the most current information see: www.wwcc.edu
DRMA 152 Beginning Acting II [HP]  3 Credits
Introduction to script analysis, scene study, and audition/monologue preparation. Students will further explore acting technique. Instruction in physical and vocal technique and a unit in theatrical makeup application are included. Work in improvisation continues. The student will complete the course with a public performance of a monologue and scene at the end of the quarter. Prerequisite: DRMA 151 or instructor permission. Formerly THEA 192.

DRMA 153 Beginning Acting III [HP]  3 Credits
For advanced beginners. Continuing scene study and monologue work. Students will be challenged with more difficult material and will further explore acting technique with an emphasis on physical and vocal technique. The student will complete the course with a public performance of a monologue and scene at the end of the quarter. Prerequisite: DRMA 152 or instructor permission. Formerly THEA 193.

DRMA 154 Acting-Summer Musical I  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 154.

DRMA 155 Acting-Summer Musical II  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 155.

DRMA 156 Acting-Summer Musical III  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 156.

DRMA 157 Acting for Film [HP]  5 Credits
Emphasizes training for the naturalistic portrayal of character; the most frequent style used in film. Teaches both the art and craft of acting through the use of a variety of techniques ranging from theory as well as technically oriented exercises designed to calibrate performance for camera. Recommended: DRMA 151.

DRMA 158 Children's Theatre  1 - 5 Credits
Designed for students aged nine years and older, to provide them an opportunity to rehearse and perform a full-length play for the public. Formerly THEA 188.

DRMA 159 Play Production I  1 - 5 Credits
Applied study in acting, stage lighting and costume construction using current productions as lab situations. Prerequisite: Instructor permission. Formerly THEA 195.

DRMA 160 Play Production II  1 - 5 Credits
Applied study in acting, stage lighting and costume construction using current productions as lab situations. Prerequisite: Instructor permission. Formerly THEA 196.

DRMA 161 Play Production III  1 - 5 Credits
Applied study in acting, stage lighting and costume construction using current productions as lab situations. Prerequisite: Instructor permission. Formerly THEA 197.

DRMA 162 Acting-Summer Musical IV  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 157.

DRMA 163 Acting-Summer Musical V  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 158.

DRMA 164 Acting-Summer Musical VI  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 159.

DRMA 165 Acting-Summer Musical VII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 160.

DRMA 166 Acting-Summer Musical VIII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 161.

DRMA 167 Acting-Summer Musical IX  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 162.

DRMA 168 Acting-Summer Musical X  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 163.

DRMA 169 Acting-Summer Musical XI  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 164.

DRMA 170 Acting-Summer Musical XII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 165.

DRMA 171 Acting-Summer Musical XIII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 166.

DRMA 172 Acting-Summer Musical XIV  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 167.

DRMA 173 Acting-Summer Musical XV  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 168.

DRMA 174 Acting-Summer Musical XVI  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 169.

DRMA 175 Acting-Summer Musical XVII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 170.

DRMA 176 Acting-Summer Musical XVIII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 171.

DRMA 177 Acting-Summer Musical XIX  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 172.

DRMA 178 Acting-Summer Musical XX  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 173.

DRMA 179 Acting-Summer Musical XXI  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 174.

DRMA 180 Acting-Summer Musical XXII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 175.

DRMA 181 Acting-Summer Musical XXIII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 176.

DRMA 182 Acting-Summer Musical XXIV  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 177.

DRMA 183 Acting-Summer Musical XXV  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 178.

DRMA 184 Acting-Summer Musical XXVI  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 179.

DRMA 185 Acting-Summer Musical XXVII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 180.

DRMA 186 Acting-Summer Musical XXVIII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 181.

DRMA 187 Acting-Summer Musical XXIX  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 182.

DRMA 188 Acting-Summer Musical XXX  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 183.

DRMA 189 Acting-Summer Musical XXXI  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 184.

DRMA 190 Acting-Summer Musical XXXII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 185.

DRMA 191 Acting-Summer Musical XXXIII  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 186.

DRMA 192 Acting-Summer Musical XXXIV  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 187.

DRMA 193 Acting-Summer Musical XXXV  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 188.

DRMA 194 Acting-Summer Musical XXXVI  1 - 5 Credits
Designed to train students in the dramatic techniques appropriate to large stage, outdoor musical productions. Formerly THEA 189.

DRMA 195 Touring Theater I  3 Credits
A play for children will be cast, rehearsed, and performed in the schools of the four-county area. This show will also be presented in the WWCC theater several times. Rehearsals typically begin during fall quarter; performances occur during the middle part of winter quarter. Formerly THEA 195.

DRMA 196 Touring Theater II  3 Credits
A play for children will be cast, rehearsed, and performed in the schools of the four-county area. This show will also be presented in the WWCC theater several times. Rehearsals typically begin during fall quarter; performances occur during the middle part of winter quarter. Formerly THEA 196.

DRMA 197 Touring Theater III  3 Credits
A play for children will be cast, rehearsed, and performed in the schools of the four-county area. This show will also be presented in the WWCC theater several times. Rehearsals typically begin during fall quarter; performances occur during the middle part of winter quarter. Formerly THEA 197.

DRMA 215 Set Design  1 - 5 Credits
Learn rudiments of set design using current production as lab situation. Prerequisite: Instructor permission. Formerly THEA 215.

DRMA 217 Technical Theatre IV  1 - 5 Credits
The current play production is used as a lab course with practical application covering fundamentals of scene construction, costuming, scene painting, and sound and lighting operation. Formerly THEA 217.

DRMA 218 Technical Theatre V  1 - 5 Credits
The current play production is used as a lab course with practical application covering fundamentals of scene construction, costuming, scene painting, and sound and lighting operation. Formerly THEA 218.

DRMA 219 Technical Theatre VI  1 - 5 Credits
The current play production is used as a lab course with practical application covering fundamentals of scene construction, costuming, scene painting, and sound and lighting operation. Formerly THEA 219.

DRMA 220 Costumes for the Stage  1 - 5 Credits
Basic skills used in costuming theatrical productions: sewing, serging, simple construction. Student may also serve on costume crew for a production. Prerequisite: Instructor permission. Formerly THEA 220.

DRMA 221 Costumes for the Stage - Construction  1 - 5 Credits
Intermediate costume construction focusing on patterns, drafting, fitting, alterations of costumes for a specific production, and complex or special construction techniques. Formerly THEA 221.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRMA 222</td>
<td>Costumes for the Stage - Management</td>
<td>1 - 5</td>
<td>Practical course in managing costumes with emphasis on production jobs. Student will serve on the costume crew for a major theatrical production. Formerly THEA 222.</td>
</tr>
<tr>
<td>DRMA 223</td>
<td>Elements of Costume Design</td>
<td>1 - 5</td>
<td>Theatrical and practical aspects of designing costumes for theatrical productions. Formerly THEA 223.</td>
</tr>
<tr>
<td>DRMA 225</td>
<td>Representative Plays [H]</td>
<td>5</td>
<td>A study of plays representative of historical periods from the ancient Greeks to modern times as an introduction to the literature and arts of the theater. Formerly THEA 225.</td>
</tr>
<tr>
<td>DRMA 251</td>
<td>Intermediate Acting I [HP]</td>
<td>3</td>
<td>This is the first quarter of second year acting for the serious drama student. A more creative response will be required in individual sessions and in mandatory plays. Prerequisite: DRMA 153 or instructor permission. Formerly THEA 251.</td>
</tr>
<tr>
<td>DRMA 252</td>
<td>Intermediate Acting II [HP]</td>
<td>3</td>
<td>Designed for the more advanced drama student. A series of audition pieces suitable for use in auditioning for the professional theater will be prepared. These will cover at least four different types of pieces; that is, comic, serious, musical, classical, etc. At the end of the quarter the student will present two contrasting pieces as a program. Prerequisite: DRMA 251 or instructor permission. Formerly THEA 252.</td>
</tr>
<tr>
<td>DRMA 253</td>
<td>Intermediate Acting III [HP]</td>
<td>3</td>
<td>In the third quarter of the second year of acting courses, the students will apply the techniques they have learned. Comprehensive analysis of character roles will be presented in scene work. Prerequisite: DRMA 252 or instructor permission. Formerly THEA 253.</td>
</tr>
<tr>
<td>DRMA 270</td>
<td>Stage Management</td>
<td>3</td>
<td>The manager guides the cast through the rehearsal and production of the current play. Formerly THEA 270.</td>
</tr>
<tr>
<td>DRMA 271</td>
<td>Directing [HP]</td>
<td>3</td>
<td>Direct students in acting in assigned scenes. The student will also assist the instructor in directing assigned scenes in the current production. Formerly THEA 271.</td>
</tr>
<tr>
<td>DRMA 272</td>
<td>Intermediate Directing [HP]</td>
<td>3</td>
<td>The beginning and intermediate directing students will direct students in acting in assigned scenes. The student will also assist the instructor in directing assigned scenes in the current production. Formerly THEA 272.</td>
</tr>
<tr>
<td>DRMA 273</td>
<td>Advanced Directing [HP]</td>
<td>3</td>
<td>The advanced directing student will direct, with supervision, a play to be presented to the public. Formerly THEA 273.</td>
</tr>
<tr>
<td>DRMA 275</td>
<td>Special Projects in Costuming - Construction</td>
<td>1 - 5</td>
<td>Advanced costume construction for major theater production. Students may be responsible for a group of costumes or supervise a construction crew. Formerly THEA 275.</td>
</tr>
<tr>
<td>DRMA 276</td>
<td>Special Projects in Costuming - Design</td>
<td>1 - 5</td>
<td>Students will design costumes for a small production or a group of costumes for a large play. Students will supervise construction of their designs. This course is intended as the culmination of costume courses at WWCC. Formerly THEA 276.</td>
</tr>
<tr>
<td>DRMA 281</td>
<td>Beginning Playwriting [H]</td>
<td>5</td>
<td>Introduces students to the elements, art and discipline of playwriting, by exploration of established works and creation of original one-act plays, scenes and monologues. By the course’s conclusion, students will have completed a revised draft of a one-act play, and hear a scene from their plays read in a public performance. Designed as an introduction to the process of playwriting. The emphasis is on the exploration of a range of techniques and tools available to the playwright. Through the completion and discussion of a series of writing exercises the class will examine the various elements of playwriting. The way that these elements may be combined to create plays will be explored in the writing of several short plays, and ultimately, in the drafting a longer work. Prerequisite: ENGL 097 or instructor permission. [H]</td>
</tr>
<tr>
<td>DRMA 290</td>
<td>Play Production IV [HP]</td>
<td>1 - 5</td>
<td>Second year of applied study in acting, stage lighting, scenery and costume construction using current productions as lab situations. Prerequisite: Instructor permission. Formerly THEA 290.</td>
</tr>
<tr>
<td>DRMA 291</td>
<td>Play Production V [HP]</td>
<td>1 - 5</td>
<td>Second year of applied study in acting, stage lighting, scenery and costume construction using current productions as lab situations. Prerequisite: Instructor permission. Formerly THEA 291.</td>
</tr>
<tr>
<td>DRMA 292</td>
<td>Play Production VI [HP]</td>
<td>1 - 5</td>
<td>Second year of applied study in acting, stage lighting, scenery and costume construction using current productions as lab situations. Prerequisite: Instructor permission. Formerly THEA 292.</td>
</tr>
<tr>
<td>DRMA 295</td>
<td>Touring Theater II [HP]</td>
<td>3</td>
<td>A play for children will be cast, rehearsed, and performed in the schools of the four-county area. This show will also be presented in the WWCC theater several times. Rehearsals typically begin during fall quarter; performances occur during the middle part of winter quarter. Formerly THEA 295.</td>
</tr>
<tr>
<td>DRMA 296</td>
<td>Touring Theater V [HP]</td>
<td>3</td>
<td>A play for children will be cast, rehearsed, and performed in the schools of the four-county area. This show will also be presented in the WWCC theater several times. Rehearsals typically begin during fall quarter; performances occur during the middle part of winter quarter. Formerly THEA 296.</td>
</tr>
</tbody>
</table>

For the most current information see: www.wwcc.edu

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DRAMA - EARLY CHILDHOOD EDUCATION

DRMA 297 Touring Theater VI [HP] 3 Credits
A play for children will be cast, rehearsed, and performed in the schools of the four-county area. This show will also be presented in the WWCC theater several times. Rehearsals typically begin during fall quarter; performances occur during the middle part of winter quarter. Formerly THEA 297.

DRMA 298 Special Topics 1 Credit
Project-oriented experiences in the area or applications not covered in the standard theatre arts curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience. Formerly THEA 298.

DRMA 299 Special Projects 1 - 5 Credits
For students interested in working on projects in design, acting, directing, stage management, playwriting, etc. Prerequisite: Instructor permission. Formerly THEA 299.

Early Childhood Education

ECED& 100 Child Care Basics 3 Credits
Designed to meet licensing requirements for early learning lead teachers and family home child care providers, STARS 30 hour basics course recognized in the MERIT system. Topics: child growth/development, cultural competency, community resources, guidance, health/safety/nutrition and professional practice. Recommended: READ 088. Formerly ECE 148.

ECED& 105 Intro Early Child Ed 5 Credits
Explore theories defining the field, issues and trends, best practices, and program models. Observe children, professionals, and programs in action. Formerly ECE 101. Recommended: READ 088.

ECED& 107 Health/Nutrition/Safety 5 Credits
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 234. READ 088

ECED& 120 Practicum-Nurturing Rel 2 Credits
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. Recommend: READ 088.

ECED& 132 Infants/Toddlers Care 3 Credits
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 240. Recommended: READ 088.

ECED& 134 Family Child Care 3 Credits
Learn the basics of home/family child care program management. Topics include: licensing requirements; business management; relationship building; health, safety, & nutrition; guiding behavior and; promoting growth & development. Recommend: READ 088

ECED& 139 Teaching Young Children I 3 Credits
Provides student experience in an early care setting. The student integrates experience and knowledge of young children in planning and assisting as preschool teacher/preschool teacher's assistant. Topics include environments, curriculum evaluation, staff relationships, and code of ethics. Prerequisites: ECE 191 and instructor permission. Recommended: READ 088.

ECED& 139 Admin Early Lrng Prog 3 Credits
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 NAEYC standard compliance. Recommended: READ 088. Formerly ECE 275.

ECED& 144 Early Childhood Education Seminar .5 - 2 Credits
This course includes STARS and CDA seminars. Topics will vary by quarter.

ECED& 150 Math & Science for Early Childhood 5 Credits
Focus on math and science for preschool and primary grade children. Students will learn how to create developmentally appropriate curriculum that will support young children in acquiring concepts and skills essential to basic understanding of math and science. Classroom activities will be introduced and concepts studied through inquiry based learning, note taking and discussion sessions. Recommended: READ 088

ECED& 160 Curriculum Development 5 Credits
Investigate learning theory, program planning, and tools for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in your children (birth-age 8). Recommend: READ 088. Formerly ECE 231.

ECED& 170 Environments-Young Child 3 Credits
Design, evaluate, and improve indoor and outdoor environments which ensure quality learning, nurturing experiences, and optimize the development of young children. Recommend: READ 088. Formerly ECE 136

ECED& 180 Lang/ Literacy Develop 3 Credits
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 137. Recommend: READ 088.

ECED& 190 Observation/Assessment 3 Credits
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. Recommend: READ 088. Formerly ECE 175.

ECED& 191 Cooperative Work Experience 1 - 3 Credits
Provides hands-on experience in the early childhood field. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission. Recommended: READ 088.
### Early Childhood Education - CCN

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ECE 199</td>
<td>Special Topics</td>
<td>1 - 5 Credits</td>
<td>Study and train to meet established local needs in the early childhood education field, supplemental to courses currently offered. Prerequisite: Instructor permission. Recommended: READ 088.</td>
</tr>
<tr>
<td>ECE 232</td>
<td>Curriculum Development II</td>
<td>5 Credits</td>
<td>Develop competence in the use of various types of literature, criteria for selecting children's books, and methods to provide literacy experiences with young children. Introduction to creative art experiences for young children. Introduction to activities that assist in development of a young child's muscle coordination, awareness of body image and movement, and physical development. Experience literature, art, music and movement from various cultures. Recommend: READ 088</td>
</tr>
<tr>
<td>ECE 239</td>
<td>Teaching Young Children II</td>
<td>3 Credits</td>
<td>Provides student experience in an early childhood setting and experience in integrating past experience and knowledge of young children in planning and assisting as preschool teacher/preschool teacher’s assistant. Topics include environments, curriculum evaluation, staff relationships, and code of ethics. Prerequisite: Instructor permission, successful completion of ECE 139 and ECE 291. Recommended: READ 088.</td>
</tr>
<tr>
<td>ECE 255</td>
<td>Children at Risk</td>
<td>3 Credits</td>
<td>Caring for children from families affected by substance abuse. Topics include values clarification, family characteristics, families in treatment, empowerment. Recommended: READ 088. Student may not earn credit for both ECE 255 and ED 255.</td>
</tr>
<tr>
<td>ECE 291</td>
<td>Cooperative Work Experience II</td>
<td>1 - 3 Credits</td>
<td>Opportunity to participate in hands-on training in the early childhood field. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission. Recommended: READ 088.</td>
</tr>
<tr>
<td>ECE 297</td>
<td>Special Projects</td>
<td>1 - 10 Credits</td>
<td>Project-oriented experiences in the area or applications not covered in the standard early childhood education curriculum. Prerequisite: Instructor permission, based on evaluation of student's education and work experience.</td>
</tr>
<tr>
<td>ECE 299</td>
<td>Leadership</td>
<td>1 Credit</td>
<td>Develop awareness of leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.</td>
</tr>
<tr>
<td>ECED&amp; 100</td>
<td>Child Care Basics</td>
<td>3 Credits</td>
<td>Designed to meet licensing requirements for early learning lead teachers and family home child care providers, STARS 30 hour basics course recognized in the MERIT system. Topics: child growth/development, cultural competency, community resources, guidance, health/safety/nutrition and professional practice. Recommended: READ 088. Formerly ECE 148.</td>
</tr>
<tr>
<td>ECED&amp; 107</td>
<td>Health/Nutrition/Safety</td>
<td>5 Credits</td>
<td>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 234. READ 088</td>
</tr>
<tr>
<td>ECED&amp; 120</td>
<td>Practicum-Nurturing Rel</td>
<td>2 Credits</td>
<td>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. Recommended: READ 088.</td>
</tr>
<tr>
<td>ECED&amp; 132</td>
<td>Infants/Toddlers Care</td>
<td>3 Credits</td>
<td>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 240. Recommended: READ 088.</td>
</tr>
<tr>
<td>ECED&amp; 134</td>
<td>Family Child Care</td>
<td>3 Credits</td>
<td>Learn the basics of home/family child care program management. Topics include: licensing requirements; business management; relationship building; health, safety, &amp; nutrition; guiding behavior and; promoting growth &amp; development. Recommend: READ 088</td>
</tr>
<tr>
<td>ECED&amp; 139</td>
<td>Admin Early Lrng Prog</td>
<td>3 Credits</td>
<td>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 NAEYC standard compliance. Recommended: READ 088. Formerly ECE 275.</td>
</tr>
<tr>
<td>ECED&amp; 160</td>
<td>Curriculum Development</td>
<td>5 Credits</td>
<td>Investigate learning theory, program planning, and tools for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in your children (birth-age 8). Recommend: READ 088. Formerly ECE 231.</td>
</tr>
<tr>
<td>ECED&amp; 170</td>
<td>Environments-Young Child</td>
<td>3 Credits</td>
<td>Design, evaluate, and improve indoor and outdoor environments which ensure quality learning, nurturing experiences, and optimize the development of young children. Recommend: READ 088. Formerly ECE 136</td>
</tr>
<tr>
<td>ECED&amp; 180</td>
<td>Lang/ Literacy Develop</td>
<td>3 Credits</td>
<td>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 137. Recommend: READ 088.</td>
</tr>
</tbody>
</table>

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# Early Childhood Parenting Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ECPE 050</td>
<td>Parent Toddler Relationships</td>
<td>2</td>
<td>Group observation and participation experience for parents of one year-olds to study and discuss relevant parenting topics. Discussions are enhanced through the use of current literature, videos, and guest speakers. Observing and interacting with children age 12-24 months provide the laboratory experience.</td>
</tr>
<tr>
<td>ECPE 051</td>
<td>Parent Toddler Relationships</td>
<td>2</td>
<td>Group observation and participation experience for parents of one year-old children to study and discuss relevant parenting topics. Discussions are enhanced through the use of current literature, videos, and guest speakers. Observing and interacting with children age 12-24 months provide the laboratory experience.</td>
</tr>
<tr>
<td>ECPE 052</td>
<td>Parent Toddler Relationships</td>
<td>2</td>
<td>This parent education course provides an opportunity to discuss and study relevant parenting topics for parents of two year-old children. Discussions are enhanced through the use of current literature, filmstrips, videos, and guest speakers from the community. Observing and interacting with children provide the laboratory experience.</td>
</tr>
<tr>
<td>ECPE 050</td>
<td>Parent Toddler Relationships</td>
<td>2</td>
<td>Group observation and participation experience for parents of one year-olds to study and discuss relevant parenting topics. Discussions are enhanced through the use of current literature, videos, and guest speakers. Observing and interacting with children age 24-36 months old to provide the laboratory experience.</td>
</tr>
<tr>
<td>ECPE 052</td>
<td>Parent Toddler Relationships</td>
<td>2</td>
<td>Group observation and participation experience for parents of one year-old children to study and discuss relevant parenting topics. Discussions are enhanced through the use of current literature, videos, and guest speakers. Observing and interacting with children age 12-24 months provide the laboratory experience.</td>
</tr>
<tr>
<td>ECPE 100</td>
<td>Parent Cooperative Preschool</td>
<td>1.0-3</td>
<td>Parents of children ages three to five years enroll in a parent education course which meets one evening per month. Parents register their child for a preschool group. Each preschool group charges tuition to cover operational costs of the group. Each parent participates in a weekly lab session with children to practice learning from parent education course.</td>
</tr>
</tbody>
</table>

## Economics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 200</td>
<td>Survey of Economics [SS]</td>
<td>5</td>
<td>Emphasis is given to application of economic principles and concepts in solving economic problems encountered by individuals at the firm or household level up to the national level. College transfer students are encouraged to take ECON&amp; 201 and ECON&amp; 202.</td>
</tr>
<tr>
<td>ECON&amp; 201</td>
<td>Microeconomics [SS]</td>
<td>5</td>
<td>Introduction to microeconomics as applied to production, consumption, and marketing issues in the business and production sectors of the economy. Topics include supply/demand theory, consumer choice theory, production theory, and costs of production. Student may not earn credit for both ECON&amp; 201 and AGRI 201. Formerly ECON 202, Fundamentals of Microeconomics.</td>
</tr>
<tr>
<td>ECON&amp; 202</td>
<td>Macroeconomics [SS]</td>
<td>5</td>
<td>Theory and policy related to organization and operation of a market economy. Topics include supply and demand theory, government spending and taxation, money and banking, analysis of employment, inflation, aggregate output and economic growth, and fiscal and monetary policy tools. Formerly ECON 201, Fundamentals of Macroeconomics.</td>
</tr>
</tbody>
</table>

## Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 106</td>
<td>Tutor Training</td>
<td>1</td>
<td>Provides training in the fundamental skills useful to peer tutors of mathematics, science and writing. Through lectures, class discussions, and activities; students will be introduced to the academic and personal skills that characterize effective tutors. Course will meet for one hour per week.</td>
</tr>
<tr>
<td>EDUC 111</td>
<td>Teaching and Learning Lab</td>
<td>1</td>
<td>Designed for future teachers and those pursuing a degree in education related field. Students will volunteer in a school setting to satisfy entry requirements of Teacher Education Program at four-year institutions. Students must volunteer 30 hours per credit. Prerequisite: EDUC&amp; 202 or instructor permission. Recommended: READ 088.</td>
</tr>
</tbody>
</table>
EDUC& 115 Child Development 5 Credits
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. Recommended: READ 088. Formerly EDUC& 114, Child Development.

EDUC& 130 Guiding Behavior 3 Credits
Examine the principles and theories promoting social competence in your children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences. Recommended: READ 088. Formerly ECE 170.

EDUC& 136 School Age Care 3 Credits
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. * School-Age Care Professionals work with children ages 5-12 in a variety of settings including before and after school care available in family child care homes and profit or non-profit settings sponsored by community based organizations or agencies such as YMCA and YWCA, public schools, community centers and faith-based programs. In all of these programs it is the responsibility of the School-Age Professional to support the needs of individual children/youth and provide developmentally age appropriate and culturally relevant activities. READ 088. Formerly ECE 242.

EDUC& 150 Child/Family/Community 3 Credits
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. Recommended: READ 088. Formerly ECE 219.

EDUC& 202 Intro to Education [SS] 5 Credits
Explores units on teaching as a profession and the history and philosophy of education. Includes observation of classroom procedures, critical reports, and research, as well as philosophical foundations and theories of education, legal issues, historical foundation, administration and governance, curriculum and schools. Recommended: READ 088. Formerly ED 110, Introduction to Education.

EDUC& 203 Exceptional Child 3 Credits
Explore characteristics of children with special needs. Topics include legislation affecting special education as well as causes and classification of handicapping conditions. Strategies to teach all children are practiced. Recommended: READ 088. Student may not earn credit for both EDUC& 203 and ECE 155. Formerly ED 155, Introduction to Exceptional Student.

EDUC 297 Special Projects 1 - 10 Credits
Project-oriented experiences in the area or applications not covered in the standard education paraprofessional curriculum. Prerequisite: Instructor permission, based on evaluation of student's education and work experience.

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**ENERGY SYSTEMS TECHNOLOGY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 115</td>
<td>Industrial Mechanics/Maintenance - Wind Machines</td>
<td>5</td>
</tr>
<tr>
<td>EST 120</td>
<td>Air Conditioning Systems</td>
<td>6</td>
</tr>
<tr>
<td>EST 131</td>
<td>Principles of Electricity Theory</td>
<td>5</td>
</tr>
<tr>
<td>EST 132</td>
<td>Principles of Electricity AC Application</td>
<td>5</td>
</tr>
<tr>
<td>EST 133</td>
<td>Introduction to Controls</td>
<td>5</td>
</tr>
<tr>
<td>EST 134</td>
<td>Electrical Raceways</td>
<td>3</td>
</tr>
<tr>
<td>EST 135</td>
<td>Industrial Safety in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>EST 144</td>
<td>Industrial Safety in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>EST 150</td>
<td>Motors and Motors Maintenance</td>
<td>6</td>
</tr>
<tr>
<td>EST 159</td>
<td>Hydraulics and Pneumatics</td>
<td>3</td>
</tr>
<tr>
<td>EST 165</td>
<td>Rigging, Equipment Operation &amp; Material Handling</td>
<td>5</td>
</tr>
<tr>
<td>EST 175</td>
<td>Tower Rescue and Climbing Competency</td>
<td>1.2</td>
</tr>
<tr>
<td>EST 191</td>
<td>Cooperative Work Experience</td>
<td>1 - 18</td>
</tr>
<tr>
<td>EST 192</td>
<td>Cooperative Seminar</td>
<td>2</td>
</tr>
<tr>
<td>EST 199</td>
<td>Special Topics</td>
<td>1 - 10</td>
</tr>
<tr>
<td>EST 200</td>
<td>Ductwork Design and Fabrication</td>
<td>4</td>
</tr>
</tbody>
</table>

Addresses the needs of the multi-crafted maintenance technician and presents an all-encompassing view of the field of industrial maintenance, which covers a variety of technical skill areas. These include, but are not limited to: mechanics (mechanical installation, fluid power, piping systems, power transmission, print reading, and safety to name a few), and welding (gas welding and arc welding).

**EST 115 Industrial Mechanics/Maintenance - Wind Machines** 5 Credits

Applies psychometrics to residential and light commercial package and split comfort air conditioner systems. Air Conditioning system installation and operating parameters in a Green Environment will be covered with emphasis on electrical and mechanical component operation and safety, compliance with NEC and the UMC will be taught to include maintenance, troubleshooting and repairs in typical AC equipment. Prerequisites: EST 100 and 101; or instructor permission.

**EST 120 Air Conditioning Systems** 6 Credits

Provides training in electrical raceways types, tools and procedures used in the electrical industry. Gain a working knowledge of appropriate tools and procedures in bending and installing various types of raceways in compliance with the NEC® and electrical safety.

**EST 131 Principles of Electricity Theory** 5 Credits

Introduction to electrical theory and terminology, electrical safety, direct current (DC), electrical energy sources, conductors, resistance, circuit types, Ohm's law, circuit calculations and measuring instruments, magnetism, alternating current (AC) single and three phase generation and circuits, and introduction to the National Electrical Code.

**EST 132 Principles of Electricity AC Application** 5 Credits

Provides a practical application of alternating current (AC) generation and operational circuits. Typical wiring practices of single and three phase wiring of plugs, receptacles, lighting, panel, disconnects, conduit, capacitors, power and control transformers, DC generators, AC alternators, an introduction to DC and AC motors. Prerequisite: EST 132 and passing grade of C or higher in EST 131 or instructor permission.

**EST 133 Introduction to Controls** 5 Credits

Electrical safety and introduces control principles, operation, symbols & electrical diagrams, wiring, adjustment, and testing procedures for pressure, temperature, level and flow controls used in application of operational and safety controls of all industries. Manual, electric-mechanical, mechanical-electric and electronic controls will be covered. Prerequisite: EST 131, or grade of C or higher in EST 132, or instructor permission.

**EST 134 Electrical Raceways** 3 Credits

Provides training in electrical raceways types, tools and procedures used in the electrical industry. Gain a working knowledge of appropriate tools and procedures in bending and installing various types of raceways in compliance with the NEC® and electrical safety.

**EST 135 Industrial Safety in the Workplace** 3 Credits

Industry OSHA-10 Safety Certified Training, Workforce Safety Modules for personal and equipment safety. CPR, Medic First Aid and AED certificate training will be provided. Topics include lock out tag out, safe use of ladders, scaffolds, platforms, and power tools; First Aid, CPR, fire extinguishers, ventilation and employer safety responsibilities. Students with current or OSHA 10 or first aid may take reduced adjusted credits.

**EST 136 Principles of Electricity Theory** 5 Credits

Addresses the needs of the multi-crafted maintenance technician and presents an all-encompassing view of the field of industrial maintenance, which covers a variety of technical skill areas. These include, but are not limited to: mechanics (mechanical installation, fluid power, piping systems, power transmission, print reading, and safety to name a few), and welding (gas welding and arc welding).

**EST 144 Industrial Safety in the Workplace** 3 Credits

The practical aspects of types and applications of single and three phase motors motor controls are covered. Applied electrical symbols, wiring diagrams, basic motor operation, connection wiring, testing and maintenance of motors, automatic and electronic motor controls. Prerequisite: EST 131 or grade of C or higher in EST 132; or instructor permission.

**EST 150 Motors and Motors Maintenance** 6 Credits

Explores the basic principles of hydraulic and pneumatic systems, industry terminology, mechanical symbols, system components, energy and personal safety, completing calculations, review of operations and maintenance. Recommended: EST 100.

**EST 159 Hydraulics and Pneumatics** 3 Credits

Designed to teach the techniques of safely lifting and moving loads of various shapes, sizes, and types. Also covered is tooling, hand and radio signals, safety around equipment, and equipment operation including Forklifts, Scissor Lifts, and Ariel Man lifts. Prerequisite: EST 100 or EST 103 or EST 108 or Instructor Permission.

**EST 165 Rigging, Equipment Operation & Material Handling** 5 Credits

Prerequisite: Instructor permission.

**EST 175 Tower Rescue and Climbing Competency** 1.2 Credits

Provides students with the knowledge and skill sets needed to be able to ascend a wind turbine tower, work on the unit, descend the unit, and perform self-rescue and partner rescue in emergency conditions. This is a two day course which exceeds the minimum requirements set by OSHA and NIOSH for the tower erection industry. Prerequisite: Must be enrolled in the Wind Energy Technology program.

**EST 191 Cooperative Work Experience** 1 - 18 Credits

Opportunity to work in jobs directly related to the energy systems industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.

**EST 192 Cooperative Seminar** 2 Credits

Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: EST 191.

**EST 199 Special Topics** 1 - 10 Credits

Study and train to meet established local needs in the energy systems technology industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

**EST 200 Ductwork Design and Fabrication** 4 Credits

Demonstrate a heat loss/gain calculation to determine proper load for a residence, students will perform equipment sizing and selection, use duct calculator to design supply and return ductwork. Air distribution and air balance, duct component fabrication and installation, duct sealing duct PTSA duct testing will be covered to give student understanding and application for energy savings using green technology. Prerequisite: Instructor permission.

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### Energy Systems Technology - Engineering

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EST 220</td>
<td>Ammonia Refrigeration Systems</td>
<td>3</td>
</tr>
<tr>
<td>EST 225</td>
<td>Commercial Refrigeration Equipment</td>
<td>8</td>
</tr>
<tr>
<td>EST 235</td>
<td>Introduction to Solar PV and Applications</td>
<td>3</td>
</tr>
<tr>
<td>EST 240</td>
<td>Intro to Basic Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EST 250</td>
<td>Introduction to PLC and DDC Control</td>
<td>5</td>
</tr>
<tr>
<td>EST 252</td>
<td>Principles of Power Generation and Distribution</td>
<td>5</td>
</tr>
<tr>
<td>EST 264</td>
<td>Heating Systems and Heat Pumps</td>
<td>8</td>
</tr>
<tr>
<td>EST 265</td>
<td>Commercial Refrigeration Equipment</td>
<td>8</td>
</tr>
<tr>
<td>EST 270</td>
<td>Principles of Business Management</td>
<td>5</td>
</tr>
<tr>
<td>EST 292</td>
<td>Cooperative Seminar II</td>
<td>2</td>
</tr>
<tr>
<td>EST 297</td>
<td>Special Projects</td>
<td>1 - 18</td>
</tr>
</tbody>
</table>

### Energy Systems Technology - Wind Energy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR&amp; 104</td>
<td>Intro to Design</td>
<td>5</td>
</tr>
<tr>
<td>ENGR&amp; 111</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>ENT 112</td>
<td>Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>ENT 121</td>
<td>Computer Aided Drafting and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 122</td>
<td>Advanced Computer Aided Design</td>
<td>3</td>
<td>Introduction to advanced applications of computer aided drafting and design of three-dimensional graphics and engineering drawings using Civil 3D software. Course includes the production of engineering graphics and documents. Prerequisite: ENT 121 or instructor permission. Formerly CET 152</td>
</tr>
<tr>
<td>ENT 123</td>
<td>Computer Aided 3-D Modeling</td>
<td>3</td>
<td>Introduction to advanced applications of computer aided drafting and design of three-dimensional graphics and engineering drawings using AutoCAD 3D modeling software. Course includes the production of engineering graphics and documents. Prerequisite: ENT 121 or instructor permission</td>
</tr>
<tr>
<td>ENT 131</td>
<td>Construction Materials</td>
<td>4</td>
<td>Introduction to the fundamental principles of materials commonly used for engineering projects. Emphasis is on the properties and applications of materials such as mineral aggregates, concrete, timber, steel, aluminum, and plastic materials. Students shall complete ASTM and/or AASHTO laboratory test methods of materials. Formerly CET 242</td>
</tr>
<tr>
<td>ENT 132</td>
<td>Soil Mechanics for Construction</td>
<td>4</td>
<td>Introduction to the fundamental principles of soil mechanics as it relates to engineering design. Emphasis is on the identification, classification, engineering properties, compaction, aggregate gradations, bearing capacities, and construction consideration of soils. Students shall complete ASTM and/or AASHTO laboratory test methods of soils. Formerly CET 224</td>
</tr>
<tr>
<td>ENT 141</td>
<td>Estimating</td>
<td>3</td>
<td>Introduction to the fundamental principles of identifying and estimating construction costs of engineering projects. Emphasis is on material quantity take-offs, development of material, labor, equipment, and overhead costs, construction document interpretation, and bidding strategies. Course includes a final project. Formerly CET 100</td>
</tr>
<tr>
<td>ENT 150</td>
<td>Introduction to GIS</td>
<td>3</td>
<td>Introduction to the fundamentals of GIS and GPS. Emphasis is on the fundamentals of cartography, geography, map projections, coordinate systems, attributes, data formats, and analysis of data both spatially and spatially using ESRI ArcGIS for Desktop software. Formerly CET 250</td>
</tr>
<tr>
<td>ENT 151</td>
<td>Advanced GIS</td>
<td>3</td>
<td>Instruction in advanced topics of GIS. Emphasis includes geospatial analysis, creation and use of geo-databases, geo-coding, geo-referencing, digital elevation models, and Lidar technology using ESRI ArcGIS for Desktop software. Prerequisite: ENT 171 and ENGR&amp; 111 or instructor permission. Formerly CET 251</td>
</tr>
<tr>
<td>ENT 161</td>
<td>Elementary Surveying</td>
<td>3</td>
<td>Introduction to the fundamental principles of plane surveying with emphasis on the fundamentals of distance measurement, levels, theodolites, global positioning, legal descriptions, and public land survey system. Course includes field laboratory activities. Co-requisite: OCSUP 107, MATH&amp; 141, or instructor permission. Formerly CET 160</td>
</tr>
<tr>
<td>ENT 162</td>
<td>Intermediate Surveying</td>
<td>5</td>
<td>Instruction in intermediate levels of plane surveying with emphasis on total stations, traverse computations, areas, volumes and topographic surveys using Carlson survey software. Course includes field laboratory activities. Pre-requisite: ENT 161 or instructor permission.</td>
</tr>
<tr>
<td>ENT 163</td>
<td>Advanced Surveying</td>
<td>5</td>
<td>Instruction in advanced levels of plane surveying and introduction to geodetic surveying with emphasis on coordinate geometry computations, GPS usage, state plane coordinates, and construction staking. Course includes field laboratory activities and a final project. Prerequisite: ENT 162 or instructor permission. Formerly CET 161</td>
</tr>
<tr>
<td>ENT 201</td>
<td>Engineering Construction Management</td>
<td>4</td>
<td>Introduction to the fundamental principles of construction administration for construction managers and design engineers. Emphasis is on project delivery, responsibilities, authority, contract and bid documents, documentation, legal matters, safety, planning, and scheduling involved in engineering construction projects. Course includes group exercises. Formerly CET 201</td>
</tr>
<tr>
<td>ENT 202</td>
<td>Construction Inspection</td>
<td>3</td>
<td>Introduction to the fundamental principles of construction inspection for engineering projects. Emphasis is on quality control practices and procedures, inspection methods, the role of the inspector, state and local contract specifications, and field experience. Course includes site visits and oral and written reports. Formerly CET 202</td>
</tr>
<tr>
<td>ENT 211</td>
<td>Hydraulics</td>
<td>5</td>
<td>Introduction to the fundamental principles of fluid characteristics and the related impact on engineering design. Emphasis is on properties and definitions of fluid mechanics, fluid statics, fluid dynamics, fluid flow, measurement of fluids, orifices, weirs, pipe flow, and open channel flow. Prerequisite: OCSUP 107, MATH&amp; 141, or instructor permission. Formerly CET 223</td>
</tr>
<tr>
<td>ENT 212</td>
<td>Hydrology</td>
<td>5</td>
<td>Introduction to the fundamental principles of analysis and design of storm water conveyance systems. Emphasis is on the hydrological cycle, surface water runoff analysis, and the design of detention systems, conveyance systems, culverts, and storm water outlet protection. Prerequisite: ENT 211 or instructor permission. Formerly CET 166</td>
</tr>
<tr>
<td>ENGR&amp; 214</td>
<td>Statics</td>
<td>5</td>
<td>Fundamental principles of the mechanics of rigid bodies will be explored. Topics include forces in a plane, forces in space, statics of rigid bodies, rigid bodies in three dimensions, centroids, friction and Moments of Inertia. This course is calculus based. Co-requisite: MATH&amp; 152. Student may not earn credit for both ENGR&amp; 214 and CET 220. Formerly CET 220, Engineering Mechanics - Statics.</td>
</tr>
</tbody>
</table>

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ENGR& 215 Dynamics 5 Credits  
A calculus-based study of kinetics and kinematics including: rectilinear, curvilinear, and relative motion, equations of motion, work and energy, impulse and momentum, rotational motion, and angular momentum. Rectilinear and curvilinear motion in two dimensions is considered, in both rectangular and polar coordinates. Prerequisites: ENGR& 214 and MATH&152 with a grade of C or higher

ENT 221 Engineering Mechanics - Statics 5 Credits  
Instruction in the fundamental principles of the mechanics of rigid bodies. Emphasis is on forces in a plane, forces in space, statics of rigid bodies, rigid bodies in three dimensions, centroids, friction and moments of inertia. Prerequisite: OCSUP 107, MATH 142, or instructor permission. Student may not earn credit for both ENT 221 and ENGR& 214. Formerly CET 220

ENT 222 Engineering Mechanics - Strength of Materials 5 Credits  
Instruction in the fundamental principles of internal stress, strain, deflection, and deformation of structural members. Emphasis is on stress-strain relationships, Mohr's circle, load, shear, and bending moment diagrams, beam and column analysis and design. Prerequisite: ENT 221 or instructor permission. Student may not earn credit for both ENT 222 and ENGR& 225. Formerly CET 222

ENGR& 225 Mechanics of Materials 5 Credits  
Instruction on internal stress, deflections, and deformation of structural members. Topics include bending stress, shear stress, compressive and tensile stresses, stress-strain relationships, Mohr's circle, and shear and moment diagrams. Prerequisite: ENGR& 214. Students may not earn credit for both ENGR& 225 and CET 222. Formerly CET 222, Engineering Mechanics-Strength of Materials.

ENT 231 Transportation and Highway Engineering 4 Credits  
Introduction to fundamental principles of transportation engineering and highway design. Emphasis is on vertical and horizontal roadway curves, mass diagrams, traffic studies, and level of service analysis. Course includes written reports, oral presentations, and a final project. Prerequisite: ENT 162 or instructor permission. Formerly CET 263.

ENT 232 Pavement Design 3 Credits  
Introduction to fundamental principles of pavement design. Emphasis is on asphalt mix design, asphalt pavement roadway sections, concrete pavement roadway sections, and pavement management. Course includes oral and written reports, and site visits. Prerequisite: ENT 132 and ENT 231, or instructor permission. Formerly CET 226.

ENT 281 Engineering Design Fundamentals 5 Credits  
Engineering technology students will produce a capstone design project using cumulative training gained from the program of instruction. Emphasis is on the fundamental principles of environmental issues, permits, project prospectus, engineering and surveying, design calculations, construction drawings and specifications, and cost estimates for a typical public works project. Course includes oral and written reports. Prerequisites: ENT 163 and ENGR& 225. Formerly CET 221

ENGR& 292 Leadership 2 Credits  
Students explore issues related to leadership focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Formerly CET 299.

ENGL 077 Writing Fundamentals 5 Credits  
Focuses on key elements of grammar, sentence structure, and composition of a well-developed paragraph. Prerequisite: Appropriate placement score and writing sample. Formerly ENGL 077.

ENGL 087 Writing Essentials 5 Credits  
Focuses on basic grammar conventions and mechanics; how to think critically; how to construct and combine sentences; how to organize and develop ideas; how to write paragraphs; and basic editing and proofreading skills. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 077. Formerly ENG 087.

ENGL 097 Basic Expository Writing 5 Credits  
Focuses on the composition of well-developed paragraphs and essays, the writing process, basic grammar, and critical thinking. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087.

ENGL& 101 English Composition I [C] 5 Credits  
Focuses on the development of structural and stylistic writing skills with concentration on expository, critical, analytical, and persuasive essay techniques. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 097. Formerly ENG 101, English Composition I.

ENGL& 102 English Composition II [C] 5 Credits  
Focuses on the unique process of writing an academic research paper that addresses the concerns of a research community. Prerequisite: Grade of C or higher in ENGL& 101. Formerly ENG 102, English Composition II.

ENGL 104 Advanced English Composition [C] 5.0 Credits  
An advanced English 101 class. Outcomes for Eng 104 are mirrored in 101 but with an important difference: students learn to compose college-level essays with a special emphasis given to style. The principles of good writing style will be systematically taught and the prose of accomplished stylists will be studied as models of good style. Besides learning to compose expository essays, the student will become a more capable stylist. Prerequisite: Appropriate placement test score or grade of C or higher in ENGL& 101.

ENGL& 111 Introduction to Literature [H] 5 Credits  
Examines poetry, fiction, drama, and non-fiction. Formerly LIT 140, Intro to Literature.

ENGL& 112 Introduction to Fiction [H] 5 Credits  
Examines short fiction from the 19th century to the present, drawn from a variety of countries and cultures. Formerly LIT 141, Intro to Fiction.

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<tbody>
<tr>
<td>ENGL 113</td>
<td>Introduction to Poetry [H]</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 115</td>
<td>Arthurian Literature [H]</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 118</td>
<td>Baseball Literature and American Culture [H]</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 120</td>
<td>Creative Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 130</td>
<td>Creative Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 140</td>
<td>Creative Writing III</td>
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**English as a Second Language**

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For the most current information see: www.wwcc.edu
ENGLISH AS A SECOND LANGUAGE - ENOLOGY AND VITICULTURE

ESL 005 ESL Level I
Offered to non-literate, pre-literate, or semi-literate students. Students will improve reading, writing, speaking, listening, and grammar in life skills contexts such as providing personal information, describing daily events, and identifying jobs and work-related abilities. Prerequisite: Placement by CASAS oral screen.

ESL 010 ESL Level II
Offered to students who are literate in their own language or progressed from ESL 005. Students will be able to read simple text and write simple sentences. Focus is to improve reading, writing, speaking, listening, and grammar in life skills contexts such as providing personal information, describing daily events, and identifying jobs and work related abilities. Prerequisite: Placement by CASAS or completion of ESL 005.

ESL 012 ESL Writing I
Based on the fundamentals of English grammar, progresses from vocabulary development to sentence-level grammatical instruction within the context of a wide range of personally relevant topics. Prerequisite: Appropriate CASAS placement score.

ESL 013 ESL Writing II
Focuses on the fundamentals of English grammar, and progresses from vocabulary development to sentence-level grammatical instruction and structured paragraphs. Computers are used for editing and proofreading as available. Prerequisite: CASAS score of 211 or higher.

ESL 014 Oral Communication
For students needing skills in verbal communication at a basic level. Students use familiar oral phrases, questions and social conversations to increase both speaking and listening comprehension. Prerequisite: CASAS placement score of 181-210.

ESL 015 Communication
Designed to meet the needs of students who speak with difficulty in familiar settings either face-to-face or in brief telephone conversations. Focus is on developing vocabulary, word choice, register, pace and gesture in order to increase effectiveness of communication. Prerequisite: CASAS placement score of 211 and above.

ESL 020 ESL Level III
Enables students to satisfy survival needs and routine work and social demands. Focuses on skills needed independently to accomplish simple, well defined, and structured reading, writing, speaking, and listening skills needed to communicate in English. Placement by CASAS score of 191 or completion of ESL 010.

ESL 030 ESL Level IV
Enables students to satisfy survival needs and routine work/social demands. Focuses on skills needed to independently accomplish simple, well defined, and structured reading, writing, speaking, and listening skills needed to communicate. Prerequisite: Placement by CASAS or completion of ESL 020. Students may co-enroll in IBEST courses with permission of the Transitional Studies Department.

ESL 040 ESL Level V
Enables students to satisfy routine work and social demands. Focuses on skills needed to independently accomplish well defined and structured reading, writing, speaking, and listening skills needed to communicate in English. Prerequisite: Placement by CASAS or completion of ESL 030. Student may co-enroll in a I-BEST courses with the permission of the Transitional Studies Department.

ESL 060 Multi-Level ESL
Offered for ESL students in levels I-VI. Student-centered instruction designed to develop language proficiency in reading, writing, speaking, listening and basic numeracy. Skills are developed in the context of everyday life situations with the goal of communicative and cultural competence. Technology is used to enhance learning opportunities as available.

ESL 066 e-Learning for ESL
Designed for ESL students at all levels of English competency. Students use a variety of computer programs and the Internet to improve language, grammar, vocabulary, study skills, and computer skills.

ESL 070 Special Purposes in ESL
Opportunity for students to pursue special interests and topics in ESL.

Enology and Viticulture

EV 101 Establishing a Vinifera Vineyard
4 Credits
Designed as an introduction to the processes of establishing a vineyard. Emphasis on site selection, vine varieties, soil preparation, planting methods, vineyard layout, and equipment requirements.

EV 102 Maintaining a Vinifera Vineyard
1 - 5 Credits
Provides the skills necessary for maintaining the vineyard from the point of dormancy through the harvest. Emphasizes crop monitoring techniques, pruning methods, bloom, vine manipulation, determining vine health, as well as the relationship that exists between the grower and the vintner.

EV 107 Introduction to Viticulture and Enology
5 Credits
A survey of the different viticultural and winemaking practices employed in wine production during harvest. Emphasis on vineyard harvest operations including: maturity sampling, bird netting and fall harvest. Involves the vintage productions of wines sold at College Cellars. Basic sensory analysis of wines will be performed to begin the process of palate training.

EV 108 Wine Industry Marketplace
3 Credits
Provides insights and experiences necessary to become not only a successful job applicant, but an informed and knowledgeable wine industry participant. Introduce you to the wine industry value chain, major players, industry associations and resources, industry statistics and current events. We will investigate the employers’ perspective as well as strategic job seeking, networking, and interview tactics. Using this information, students will be able to match their personal and professional skills to opportunities in the industry, whether starting their own industry enterprise or seeking employment at an existing business.
EV 113 Advanced Canopy Management  2 Credits
Designed for the viticulture student of grower who wishes to acquire a better grasp of canopy management: metrics and principles of ideal canopy management.

EV 131 Essentials of Winery Compliance  2 Credits
An introduction to winery compliance covering application processes, recordkeeping and reporting requirements for the Washington State Liquor Control Board (WSLCB), the Alcohol and Tobacco Tax and Trade Bureau (TTB), and the Washington State Department of Revenue (DOR).

EV 140 Writing for the Winery  2 Credits
Entails exchanges of ideas about what exists, what could exist and what could be done better in written materials for winery marketing publications. Sessions will include a mix of writing assignments, follow-up critiques, guest speakers with professional wine writing experience and a field trip to a winery. ENGL& 101 recommended

EV 141 Introduction to Wine Marketing  3 Credits
Introduces the student to the challenges of marketing wine in today's competitive arena and examines all the elements of successfully marketing a wine, from branding, labeling, packaging, pricing and promoting a wine with the goal of selling through the various wholesale, trade and direct channels.

EV 142 Consumer Direct Wine Sales and Marketing  3 Credits
Introduces the student to the goals of wine marketing, examines the difference between sales and marketing, and provides an in-depth look at the wine market.

EV 175 Vineyard and Winery Spanish  1 - 3 Credits
Designed for English speakers who work with winery and vineyard employees whose first language is Spanish. Covers basic pronunciation and verb conjugations while emphasizing vocabulary and expressions specific to the vineyard and winery.

EV 180 Wines of the World  1 Credit
An introduction to the wine producing regions of the world including history, viticultural practices, and winemaking styles. Includes sensory evaluation of representative wines. Must be at least 21 years old to enroll.

EV 188 Food and Wine Pairing & Presentation for the Wine Professional  2 Credits
Prepare, pair and present gourmet tastes and meals with classic and new world wines. Emphasis will be placed on the techniques of Contrasting, Complementing, and Infusing food and wine and how to use these techniques to garner sales when presenting wines to consumers and restaurant buyers. Prerequisite: Must be at least 21 years old to enroll.

EV 189 Sensory Analysis of Wine  2 Credits
Sensory analysis specific to wine production. The lecture will focus on the effect of appearance on taste perception as well as olfactory and taste transduction mechanisms. The lab portion will focus on specific wine varietals, use of oak in winemaking, secondary fermentation characteristics and individual wine component threshold identification. The overall purpose of the course is to help students to train their palates to make informed decision making during wine production. Prerequisite: EV 107. Must be at least 21 years old.

EV 193 Winery Operations Management  5 Credits
A multi-dimensional course on winery management and operations. Course includes (but not limited to) annual planning and budgets, labor relations and supervision including workplace health and safety issues. Also covered is state and federal compliance as mandated by WSLCB and the TTB, permit acquisition, record keeping, supply and product control, and best management practices for energy use. Disposal of liquid and solid winery waste and storage and distribution systems will also be covered. Prerequisite: MATH 74C or higher, and EV 107, Intro to Viticulture and Enology.

EV 194 Weather for Viticulturists  2 Credits
Outlines basic principles of weather and specifically the seasonal patterns that affect the Pacific Northwest. Various seasonal weather hazards to viticulture will be examined with respect to their origin along with the steps grape growers can take to mitigate such events: frost, hail, drought, excessive heat, winter cold injury and untimely rain, among others. Various mid- and long-range models offered by the National Weather Service and other meteorological entities that may assist the grape grower in making timely vineyard operations decisions will also be studied.

EV 196 Viticulture Practicum I  1 - 3 Credits
Provides students with hands-on learning experiences while assigned to a selected vinifera vineyard manager. Must be enrolled in the Viticulture program.

EV 197 Viticulture Practicum II  1 - 3 Credits
This is the second quarter of viticulture practicum which provides the student with hands-on learning experiences while assigned to a selected vinifera vineyard manager. Must be enrolled in the Viticulture program.

EV 198 Viticulture Practicum III  1 - 3 Credits
This is the third quarter of viticulture practicum which provides students with hands-on learning experiences while assigned to a selected vinifera vineyard manager. Must be enrolled in the Viticulture program.

EV 199 Special Topics  1 - 6 Credits
Study and train to meet established local needs in the enology and viticulture industry, supplemental to courses currently offered. Prerequisites: Current enrollment in the Enology program and instructor permission.

EV 203 Science of Winemaking I  3 Credits
This is an advanced enology course open only to students enrolled in the Enology and Viticulture program. Topics include winemaking principles such as fruit selection, pre-harvest analyses, fruit processing, juice additions, alcoholic and malolactic fermentations, as well as winery hygiene and safety. Prerequisites: Instructor permission. Must be at least 21 years old, and successful completion of AGPR 120 or CHEM& 110, MATH 074C, and EV 102.
EV 204 Science of Winemaking II  5 Credits
Emphasizes the chemistry of winemaking, wine analysis and quality control. Students will learn wine composition, wine analytical techniques, and the relevance of these analyses to winemaking decisions. Students will also gain knowledge of wine filtration and post-fermentation wine stewardship. Prerequisites: At least 21 years old, successful completion of EV 203.

EV 205 Science of Winemaking III  5 Credits
Focus on stabilization and clarification of both white and red wines on the way to bottling. It will include both heat and cold stability as well as filtration and fining techniques of wine. The culmination of the course will be when wines which students started in EV 107 are blended, filtered, fined and bottled. Excursions to other wineries as well as guest speakers are included. Prerequisites: At least 21 years old and successful completion of EV 204.

EV 231 Pesticide Licensing for Viticulture  1 Credit
Preparation for the State of Washington Private Applicator’s pesticide licensing exam with a special focus on wine grapes. Successful completion of this and the state exam will result in issuance of the Washington State Private Applicator's Pesticide License.

EV 286 Winemaking Practicum I  1 - 3 Credits
Students experience hands-on learning while working at a selected winery and receiving supervision from a professional vintner. Must be enrolled in the Enology program. Prerequisites: Instructor permission.

EV 287 Winemaking Practicum II  1 - 3 Credits
Offers hands-on learning while working at a selected winery and receiving supervision from a professional vintner. Must be enrolled in the Enology program. Prerequisites: Instructor permission.

EV 288 Winemaking Practicum III  1 - 3 Credits
Students experience hands-on learning while working at a selected winery and receiving supervision from a professional vintner. Must be enrolled in the Enology program. Prerequisites: Instructor permission.

EV 297 Special Projects  1 - 10 Credits
Project-oriented experiences in the area or applications not covered in the standard enology and viticulture curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.

EV 299 Professional Wine Leadership  1 Credit
Encourage students to develop awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.

For the most current information see: www.wwcc.edu
FCA 115 Advanced Firefighting  8 Credits
Behavior, incident command systems, ladders and ventilation, includes a practicum element. Topics include personal protective

FCA 111 Fundamentals of Firefighting  5 Credits
Provides an introduction to firefighting fundamentals according to the activities involved in fire protection. Students must have acceptance into the Fire Science program to enroll.

FRR 299 Special Topics  1 - 15 Credits
Study and train to meet established local needs in the farrier industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

FRR 245 Advanced Hoof Preparation and Shoeing  1 - 16 Credits
Hands-on shoeing experience with live horses for students beyond the intermediate level. Learn how to improve forging and shoeing abilities. Prerequisite: FRR 197 or instructor permission.

FRR 255 Advanced Forging - Handmade Shoe Unit  1 - 16 Credits
Hands-on shoeing experience with live horses for students beyond the intermediate level. The student applies hand made shoes with clips. Prerequisite: Instructor permission. FRR 245 or instructor permission.

FRR 283 Therapeutic Shoeing  1 - 16 Credits
Hands-on shoeing experience with live horses for students beyond the intermediate level. Learn how to make and apply all types of therapeutic and hand forged shoes. Prerequisite: FRR 255 or instructor permission.

FRR 297 Special Projects  1 - 16 Credits
Project-oriented experiences in the area or applications not covered in the standard farrier curriculum. Prerequisite: Instructor permission, based on evaluation of student's education and work experience.

FRR 299 Leadership  1 Credit
Encourage students to develop awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.

### FARRIER SCIENCE - FIRE SCIENCE

#### Fire Science

**FCA 100 Introduction to Firefighting  4 Credits**
Provides an overview of the fire service and the role of the firefighter. Several aspects of a career with the Fire Service will be explored beginning with the origins of the modern American fire service, the complexity of the organization, and an introduction to the activities involved in fire protection. Students must have acceptance into the Fire Science program to enroll.

**FCA 111 Fundamentals of Firefighting  5 Credits**
Provides an introduction to firefighting fundamentals according to National Fire Protection Association (NFPA) standards and includes a practicum element. Topics include personal protective equipment, search and rescue techniques, health and safety, fire behavior, incident command systems, ladders and ventilation, and hazardous materials.

**FCA 115 Advanced Firefighting  8 Credits**
Taught according to the standards of the National Fire Protection Association (NFPA) and is the final segment in the FCA 111, FCA 113, and FCA 115 series. The course expands on the topics covered in the previous courses and will include hydraulics, sprinkler systems, fire prevention education, investigation, and multi-company operations. Upon completion of this segment, the student will be able to take the test for Level 1 Firefighter conducted by the state Fire Protection Bureau. Those who successfully complete the test will receive a certificate from the International Fire Service Accreditation Congress (IFSAC) that is recognized in 35 states and 19 countries. Prerequisite: FCA 111 or instructor permission.

**FCA 120 Fire Investigation  3 Credits**
Basic study of fire scene investigation procedures and techniques used to determine the origin and cause of fire. Topics include accurate determination of the origin and cause of fire, systematic approach to fire scene examination, chemistry of fire, accidental and incendiary fire causes, scene sketching, scene photography, note taking, and Washington State Criminal statutes. Additionally basic scene security, major fire scene control, report writing, interviewing, and courtroom demeanor for the firefighter and investigator will be discussed. Prerequisite: FCA 115 or instructor permission.

**FCA 130 Hydraulics  3 Credits**
Consistent with the competencies identified in National Fire Protection Association (NFPA) standards with primary emphasis on the duties and responsibilities of a pump operator. This is accomplished by learning the operating principles, theories, and construction of the apparatus, the maintenance, pumping, operating the pump, and the study of circulating hydraulics. Prerequisite: FCA 115. Recommended: MATH 75C.

**FCA 137 Fire Protection Systems  3 Credits**
Study of fire protection and detection systems with a focus on the introduction of sprinkler system operation, maintenance, and inspection. Includes basic system designs including wet, dry, deluge, and pre-action; various sprinkler heads; system parts including connections and valves; and system operation including water supply. Maintenance and inspection of sprinkler systems and fire department support are discussed. Additional topics include occupancies requiring non-water type systems, examination of carbon dioxide systems, halogenated systems, wet/dry chemical systems, and standpipe systems along with the fire department standpipe systems. Additionally, the course explores fire extinguishers, fire detection and alarm systems. Prerequisite: FCA 100 or instructor permission.

**FCA 152 Building Construction  3 Credits**
Overview of building construction engineering principles, fire and life safety concerns, hazardous materials/techniques, and related design factors. Significant course time concentrates on the hazards of various methods, techniques, components, and materials found in building construction. Special attention to lightweight construction techniques as well as strategic and tactical considerations for contemporary building design. Utilization of building construction knowledge for pre-planning fire potential is emphasized. Prerequisite: FCA 115 or instructor permission.

**FCA 155 Fire Instructor I  3 Credits**
The study, analysis, application and evaluation of teaching/instructional methodology. Presentation of educational information and skills to fellow Fire Science students and
the general public is emphasized. Course is consistent with competencies identified by the NFPA 1041 Standard. Prerequisite: Acceptance to the Fire Science program.

**FCA 160 Fire Tactics I**  3 Credits
Addresses training in the planning, implementation, and evaluation of basic fire tactics at the responding officer level. Principle elements include pre-fire planning, size-up, fire simulation, fire behavior, organizational structures, tactics, strategy, resource requirements, and allocation of resources. Prerequisite: FCA 115 or instructor permission.

**FCA 170 Hazmat Operations**  3.0 Credits
Preparation for the IFSAC HAZMAT Operations level examination. Focus will be on Personal Protective Equipment, Health and Physical Hazards, Properties and Behavior, Hazardous Materials Identification, Incident Management and Priorities, Mitigation, Decontamination and Defensive Control Functions. The course meets the requirements of OSHA 1910.120 and NFPA 472 Awareness and Operations level core competencies.

**FCA 177 Wild Land Fire Management**  3 Credits
Designed for firefighters that are confronted with a wild land fire situation and will focus on developing entry level wild land firefighting skills, emphasizing firefighter safety. The course complies with the PNWCG S-130/S-190 course requirements for entry level wild land firefighting. Prerequisite: FCA 111 or equivalent training.

**FCA 190 Uniform Fire Codes and Inspections**  4 Credits
Study of the Uniform Fire Code as it applies to fire prevention inspections at the fire company level. Includes the Fire Code's relationship to the Uniform Building Code and other recognized standards. Special attention is given to the establishment and maintenance of model codes, the inspection process, and developing an understanding of the administrative section of the Uniform Fire Codes and the Uniform Building Codes. Discussion of public relations and alternate methods and materials give the course a realistic approach to field applications. Prerequisite: FCA 115 or instructor permission.

**FCA 299 Leadership**  3 Credits
Introduces the Fire Science student to leadership and influencing skills among emergency personnel. It will explain why effective leadership begins with personal insight and development, describe various leadership models, explore the value of trust in an organization, how to acquire personal influence, and how leaders create a work environment fostering leadership in others. In addition, the students will discuss the decision-making process especially in a crisis. Prerequisite: FCA 115 or instructor permission.

**FRCH& 121 French I [H]**  5 Credits
First quarter of a sequential first-year college-level French course that provides students with the basic tools of vocabulary, grammar, and pronunciation, along with opportunities to develop proficiency in listening, speaking, reading, and writing, while being exposed to the richness and diversity of the French-speaking world. Formerly FREN 101, French I.

**FRCH& 122 French II [H]**  5 Credits
Second quarter of a first-year college-level French course that provides students with the basic tools of vocabulary, grammar, and pronunciation, along with opportunities to develop proficiency in listening, speaking, reading, and writing, while being exposed to the richness and diversity of the French-speaking world. Prerequisite: FRCH& 121 or instructor permission. Formerly FREN 102, French II.

**FRCH& 123 French III [H]**  5 Credits
Third quarter of a first-year college-level French course that provides students with the basic tools of vocabulary, grammar, and pronunciation, along with opportunities to develop proficiency in listening, speaking, reading, and writing, while being exposed to the richness and diversity of the French-speaking world. Prerequisite: FRCH& 122 or instructor permission. Formerly FREN 103, French III.
An introductory course in climatology, the study of Earth’s present, past, and future climate. Examine natural and anthropogenic (human-caused) climate change on various timescales (from tens of years to hundreds of millions of years). Included are the effects of atmospheric greenhouse gases, tectonic climate forcing, orbital cycle variations, deep ocean circulation, and biological feedbacks. This course does not include a lab. Prerequisites: MATH 74C; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088.

GEOL 101 Introduction to Physical Geology [NS] 5 Credits
Study of the materials and processes of the earth. Topics include rocks and minerals, geologic time, volcanic activity, plate tectonic theory, earthquakes, earth’s interior, and the surface processes controlled by wind, water movement, and gravity. Laboratory exercises involve identification of common rocks and minerals, use of topographic and geologic maps, and knowledge gained through the study of earthquakes. Course also includes one local field trip. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly GEOL 101, Physical Geology.

GEOL 103 Historical Geology [NS] 5 Credits
Study of the geological history of the earth; evolution of the earth, oceans, mountain building processes, and life. The principles of stratigraphy, biostratigraphy, geochronology, fossil identification, paleogeographic reconstructions, and plate tectonics are discussed. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly GEOL 103, Historical Geology.

GEOL 110 Environmental Geology [NS] 5 Credits
The study of geologic environments through a systems approach, which emphasizes the interconnections of Earth processes, Earth materials, and human activities. Includes student activities and projects conducted in the laboratory and outdoors. One all-day field trip is required. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly GEOL 110, Environmental Earth Science.

GEOL 115 Survey of Earth Science [NS] 5 Credits
Introductory topics from Geology, Meteorology, Oceanography and Astronomy as these disciplines relate to the origin and dynamic evolution of Planet Earth. Lab work required. Course includes 2 hours of lab work per week. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088.

GEOL& 208 Geology of the Pacific Northwest [NS] 5 Credits
Examines the geology and geologic history of the Pacific Northwest. Topics include volcanoes, earthquakes, plate tectonics, rocks and minerals, faults and folds, mountain building, and glaciations. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly GEOL 210, Pacific Northwest Geology.

Health Science Education

High School Completion

HSC 037 U.S. History 1 - 5 Credits
The history and culture of the United States from approximately 1898 to the present.

HSC 038 Civics and Current World Problems 1 - 5 Credits
A study of basic world geography and contemporary national and international issues.

HSC 039 Pacific Northwest History 1 - 3 Credits
Geography, Indian cultures, settlement, economy, and ecology of the state of Washington and the Pacific Northwest.

HSC 041 Biology 1 1 - 5 Credits
An introduction to the life science of Biology, including topics from the fields of genetics, anatomy and physiology, the cell, and microbiology.

HSC 042 Biology 2 1 - 5 Credits
Biology 2 is the second in a series of two courses covering the fundamentals of Biology, preparing students to pass the End of Course Biology test required for graduation. Topics for Biology 2 include classification and physiology, genetics, evolution and animal behaviors.

HSC 043 American Government 1 - 5 Credits
A study of the structure and function of the Federal Government with the focus on the US Constitution and Bill of Rights.

HSC 044 College Prep Chemistry 1 - 5 Credits
A study of the composition, structure, and properties of matter, and the way matter changes.

HSC 050 Geography and World Affairs 1 - 5 Credits
A study of basic world geography and contemporary national and international issues

HSC 060 Algebra IA 1 - 5 Credits
The first half of a modern high school algebra sequence with a focus in seven major topics: transition from arithmetic to algebra, solving equations & inequalities, probability and statistics, proportional reasoning, linear equations and functions, systems of linear equations and inequalities, and operations on polynomials. Students enrolled in this course must take the WA State High School End of Course Algebra Assessment if they have not attempted it once already. Prerequisite: Must be working toward a high school diploma.

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### HSC 061 Algebra IB

The second half of a modern high school algebra sequence with a focus in seven major topics: transition from arithmetic to algebra, solving equations & inequalities, probability and statistics, proportional reasoning, linear equations and functions, systems of linear equations and inequalities, and operations on polynomials.

High school students enrolled in this course must take the WA State End of Course Assessment. Prerequisite: Attempted Algebra 1-2, earned .5 high school credit of Algebra 1, or HSC060; must be a student working toward a high school diploma.

### HSC 062 Geometry 1

Fulfills the first half in the fundamentals of plane geometry, covering the vocabulary and concept of geometry through the use of formal proof and algebra. Completion of the geometry sequence prepares students for higher level mathematics courses and for those science courses requiring a working knowledge of geometry.

### HSC 063 Geometry 2

Course fulfills the second half in fundamentals of plane geometry, covering the vocabulary and concept of geometry through the use of formal proof and algebra and coordinate geometry. Completion of the geometry sequence prepares students for higher level mathematics courses and for those science courses requiring a working knowledge of geometry.

### HSC 064 Financial Algebra

Financial Algebra builds on basic operations of arithmetic, develops understanding and management of personal finances, provides an overview of business finance fundamentals, develops competency in percentages, discounting, pricing, simple and compound interest, and understanding of hidden costs. This course fulfills high school graduation requirements for math.

### HSC 065 Algebra Through Evidence

A review of the entire curriculum of Algebra 1a and 1b through the application of state constructed practical based questions. This will prepare the students to pass the End of Course assessment at the end of the quarter. The students will also have the opportunity to create a Collection of Evidence as an alternate demonstration of their proficiency to the state.

### HSC 066 Geometry Through Evidence

A review of the entire curriculum of Geometry 1 and 2 through the application of state constructed practical based questions. This will prepare the students to pass the End of Course assessment at the end of the quarter. The students will also have the opportunity to create a Collection of Evidence as an alternate demonstration of their proficiency to the state. Must be a student working toward a high school diploma.

### HSC 080 Reading Fundamentals

Students work on skill development in reading. Students practice a variety of reading comprehension strategies as they read a range of materials.

### HSC 085 Writing Fundamentals

Students work on skill development in writing. Using the writing process, students will practice writing to a variety of audiences and purposes.

### HSC 090 Senior Culminating Project

Designed to assist students enrolled in the College's Alternative Education Program in completing both the 'High School and Beyond Plan' and the 'Culminating Project', state-mandated high school graduation requirements. The course provides assistance for students in planning and implementation in the three broad areas of Academic Development, Career Development, and Personal and Social Development.

### HSC 092 Walking/Health

Students will enhance physical fitness and develop lifelong skills through walking. Students will learn to use a heart rate monitor and will explore the importance of cardiovascular health.

### History

#### HIST& 116 Western Civilization I [H, SS] 5 Credits

Survey of the history of Western society and culture from origins to Renaissance, Renaissance to Industrial Revolution, Industrial Revolution to the present. Recommended: READ 088 or higher. Student may not earn credit for both HIST& 116 and 126. Formerly HIST 101, Western Civilization I.

#### HIST& 117 Western Civilization II [H, SS] 5 Credits

Survey of the history of Western society and culture from origins to Renaissance, Renaissance to Industrial Revolution, Industrial Revolution to the present. Recommended: READ 088 or higher. Student may not earn credit for HIST& 117 and 127. Formerly HIST 102, Western Civilization II.

#### HIST& 118 Western Civilization III [H, SS] 5 Credits

The history of Western society and culture covering from origins to Renaissance, Renaissance to Industrial Revolution, Industrial Revolution to the present. Recommended: READ 088 or higher. Student may not earn credit for both HIST& 118 and 128. Formerly HIST 103, Western Civilization III.

#### HIST 120 American Presidency [SS] 5 Credits

A historical and analytical examination of the Executive Branch of the United States government. Primary areas of emphasis include: leadership styles of each President, evolutionary changes in the power of the office, and the consequences of each on the country. Recommended: READ 088 or higher. Student may not earn credit for both HIST 120 and POLS 120.

#### HIST& 126 World Civilization I [H, SS] 5 Credits

Introduction to world history from a global perspective, spanning the origins of civilization through the classical world and the birth of Islam. Specifically addresses the evolving character of civilization as well as humankind's search for meaning in the face of historic change. Recommended: READ 088 or higher. Student may not earn credit for both HIST& 126 and 116. Formerly HIST 105, World History.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST&amp; 127</td>
<td>World Civilization II [H, SS]</td>
<td>5</td>
<td>Introduction to world history from a global perspective, from Tang-era China to the late 18th century Europe’s “Age of Revolution”. Specifically tracks the evolution of world civilizations to nation-states, establishing the basic character of the modern world. Recommended: READ 088 or higher. Student may not earn credit for HIST&amp; 127 and 117. Formerly HIST 107, Early Modern Civilization.</td>
</tr>
<tr>
<td>HIST&amp; 128</td>
<td>World Civilization III [H, SS]</td>
<td>5</td>
<td>Introduction to the history of world cultures from a global perspective, covering the last two centuries of world history, from roughly 1800 to present. Recommended: READ 088 or higher. Student may not earn credit for both HIST&amp; 128 and 118. Formerly HIST 109, Modern Civilization.</td>
</tr>
<tr>
<td>HIST&amp; 146</td>
<td>US History I [SS]</td>
<td>5</td>
<td>Survey of the significant individuals and events that have shaped the growth and development of the United States. Particular attention will be given to the political, economic, religious, and cultural foundations of this development. This course covers the time period from the early Native American societies to the 1830s. Recommended: READ 088 or higher. Formerly HIST 201, American History I.</td>
</tr>
<tr>
<td>HIST&amp; 147</td>
<td>US History II [SS]</td>
<td>5</td>
<td>Survey of the significant individuals and events that have shaped the growth and development of the United States. Particular attention will be given to the political, economic, religious, and cultural foundations of this development. This course focuses on the period from the 1830s to World War I. Recommended: READ 088 or higher. Formerly HIST 202, American History II.</td>
</tr>
<tr>
<td>HIST&amp; 148</td>
<td>US History III [SS]</td>
<td>5</td>
<td>Survey of the significant individuals and events that have shaped the growth and development of the United States and the American civilization from 1900 to the present. Particular attention will be given to the political, economic, religious and cultural foundations of this development. Recommended: READ 088 or higher. Formerly HIST 203, American History III.</td>
</tr>
<tr>
<td>HIST 205</td>
<td>American Environmental History [SS]</td>
<td>5</td>
<td>Explores the natural environment and its role throughout American history with special emphasis upon the ways in which different cultural groups have perceived, used, and managed America’s natural environment from pre-colonial America to the present. Examines changing attitudes and behaviors toward nature with specific attention to conservation and preservation and the consciousness that has contributed to the American environmental movement. Recommended: READ 088 or higher.</td>
</tr>
<tr>
<td>HIST 211</td>
<td>U.S. in World Affairs I [SS]</td>
<td>5</td>
<td>Examination of American involvement in international affairs. Study includes this country’s foreign policy actions as a world power, with special attention given to both the policy makers and critics of our nations position on significant international issues from the colonial period to the beginning of the 20th Century. Recommended: READ 088 or higher. Student may not earn credit for both HIST 211 and POLS 211.</td>
</tr>
<tr>
<td>HIST 212</td>
<td>U.S. in World Affairs II [SS]</td>
<td>5</td>
<td>Examination of American involvement in international affairs since 1898. Study includes this country’s foreign policy actions as a world power, with special attention given to both the policy makers and critics of our nations position on significant international issues from the Spanish-American War to the present. Recommended: READ 088 or higher. Student may not earn credit for both HIST 212 and POLS 212.</td>
</tr>
<tr>
<td>HIST&amp; 214</td>
<td>Pacific Northwest History [SS]</td>
<td>5</td>
<td>Survey of the growth and development of the Pacific Northwest Region from the early Native American societies to the present. Focuses on the cultural, economic, political, and religious development of Washington, Oregon, and Idaho from jointly occupied territories to statehood. Special emphasis will be given to the consequences of contact between European/American groups and the indigenous Native societies. Recommended: READ 088 or higher. Formerly HIST 210, Northwest History.</td>
</tr>
<tr>
<td>HIST&amp; 215</td>
<td>Women in U.S. History [D, SS]</td>
<td>5</td>
<td>Survey of the significant contributions of women to the growth and development of the United States from the early Native American societies to the present. Examines pioneering individuals and organizations, relevant legal, social, moral, political, economic, and religious issues concerning women in American society. Recommended: READ 088 or higher. Student may not earn credit for both HIST&amp; 215 and WST 215. Course taken prior to fall 2010 also accepted for diversity requirement. Formerly HIST 280, Women in US History.</td>
</tr>
<tr>
<td>HIST 250</td>
<td>Introduction to Latin America [D, SS]</td>
<td>5</td>
<td>Provides an introduction to Latin America with special emphasis on pre-European, colonial, national and international developments that have shaped the regions character from 1500 to the present. Course taken prior to fall 2010 also accepted for diversity requirement. Formerly HIST 280. Recommended: READ 088 or higher.</td>
</tr>
<tr>
<td>HIST 255</td>
<td>Traditional East Asian Civilization [SS]</td>
<td>5</td>
<td>Survey of Chinese and Japanese history and culture from prehistory to present. Recommended: READ 088 or higher.</td>
</tr>
<tr>
<td>HIST 256</td>
<td>Modern East Asian Civilization [SS]</td>
<td>5</td>
<td>Survey of Chinese, Japanese, Korean, and Vietnamese history and culture from 1800 to the present. Recommended: READ 088 or higher.</td>
</tr>
<tr>
<td>HIST 262</td>
<td>The Modern Middle East [SS]</td>
<td>5</td>
<td>Introduction to the political, social, economic, and cultural patterns of development in the Middle East from 1798 to the present. Topics begin with the Reforms of the Ottoman Empire and conclude with the American occupation of Iraq. Recommended: READ 088 or higher.</td>
</tr>
<tr>
<td>HIST 299</td>
<td>Special Projects in History</td>
<td>1 - 5</td>
<td>A course providing students the opportunity to research an area of history under the supervision of an instructor. Prerequisite: One course in history and instructor permission.</td>
</tr>
</tbody>
</table>
Humanities

HUM 107 Gender Perceptions in American Film [D, H]  5 Credits
Studies the female and male image in several genres of Hollywood movies. R rated movies are screened.

HUM 110 Four Perspectives [D, H]  5 Credits
Exploration of teachings of Pythagoras, the Buddha, Jesus Christ, and Galileo. Course taken prior to fall 2010 also accepted for diversity requirement.

HUM& 116 Humanities I [H]  5 Credits
Study of literary, artistic, and cultural achievements in the ancient world. Formerly HUM 101, Intro to Humanities I.

HUM& 117 Humanities II [H]  5 Credits
Study of literary, artistic, and cultural achievements in the middle ages and the renaissance. Formerly HUM 102, Intro to Humanities II.

HUM& 118 Humanities III [H]  5 Credits
Study of literary, artistic, and cultural achievements in the modern world. Formerly HUM 103, Intro to Humanities III.

Industrial First Aid

IFA 022 Medic First Aid Basic .4 Credit
A fundamental training program in emergency care that incorporates CPR and other emergency skills into a single course. Emphasizes utilizing the priorities of care and approach to the patient as demonstrated by professional emergency care providers. The core program provides minimum information and skills for a variety of environments and can be supplemented with additional first aid topics specific to the needs of the course participants. Available on-campus as well as on a contract basis throughout Walla Walla and Columbia counties.

IFA 023 Medic First Aid Re-Certification .2 Credit
A review of basic Medical First Aid that provides the student with CPR training and other emergency skills. Priorities of care are reviewed, and key components of the basic course are demonstrated. In order to take the re-certification course, the basic course must have been taken within the prior two-year period. Students must have Medic First Aid card issued within the last two years to enroll.

John Deere Technology

JD 101 John Deere Fundamentals and Orientation  1 - 3 Credits
Introduction to manuals, service advisor information system, engine classifications, and serial numbers. Warranty, work orders, and John Deere recommended service department policies and procedures are explained. Orientation of John Deere product lines and the evolution of these products. The safe operation of shop tools will be demonstrated and a forklift safety and operation test will be included. Student may not earn credit in both JD 101 and JDAS 101.

JD 102 Forklift Safety Training and Certification  1 Credit
Designed to meet the new OSHA requirements for lift truck operator training and certification. Safe lifting/chaining and moving of loads will be demonstrated and discussed.

JD 105 John Deere Hydraulics  8 Credits
The principles and application of fluid flow and hydraulic components are discussed. Testing and repair of low-pressure and high-pressure systems and control circuits are explained, demonstrated, and practiced. Offered to second year students only. Formerly JD 205.

JD 115 John Deere Electrical  8 Credits
Provides basic electrical principles and applications of magnetism, electromagnetism, and the safe utilization of electrical test meters. Principles of operation, testing and repair of ignition systems, cranking systems, and charging systems are demonstrated and practiced. Student may not earn credit for both JD 115 and JDAS 115.

JD 120 John Deere Heating and Air Conditioning  4 Credits
Theory, operation, and repair of late model John Deere air conditioning, heating, and ventilation systems are discussed. Recovery, recycling, and recharging of the air conditioning systems are demonstrated and practiced.

JD 125 John Deere Fuel and Emissions Systems  4 Credits
Theory, operation, and repair for spark ignition and compression ignition fuel systems are explored. Topics include relationship of valve timing, ignition, and injection timing to normal combustion. Theory, operation and maintenance of emission systems are explored and demonstrated.

JD 131 Engine Testing, Repair, and Performance  10 Credits
Provides basic physical principles, operation and construction of two- and four-stroke cycle engines. Topics include disassembly, inspection, measurement, reassembly, and adjustments to engine components. Formerly JD 110, 130, and 135.

JD 190 Cooperative Work Experience I  16 Credits
Offers students an opportunity to receive on-the-job work experience in a John Deere Dealership. Students apply and utilize skills learned on campus. Student may not earn credit in both JD 190 and JDAS 190.

JD 191 Cooperative Work Experience II  16 Credits
Opportunity to receive on-the-job work experience in a John Deere Dealership. Students apply and utilize skills learned on campus. Prerequisite: JD 190. Student may not earn credit in both JD 191 and JDAS 191.

JD 192 Cooperative Seminar I  2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. These learning skills include memory, concentration, time management, textbook reading, and exam preparation. Human relations topics include group dynamics, employee and management roles, and conflict resolution. Co-requisite: JD 190.

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### JOHN DEERE TECHNOLOGY - MATHEMATICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JD 193</td>
<td>Cooperative Seminar II</td>
<td>2 Credits</td>
</tr>
<tr>
<td>JD 199</td>
<td>Special Topics</td>
<td>1 - 10 Credits</td>
</tr>
<tr>
<td>JD 210</td>
<td>John Deere Power Train</td>
<td>8 Credits</td>
</tr>
<tr>
<td>JD 215</td>
<td>John Deere Electrical II</td>
<td>5 Credits</td>
</tr>
<tr>
<td>JD 221</td>
<td>Ag Management Solutions</td>
<td>4 Credits</td>
</tr>
<tr>
<td>JD 225</td>
<td>John Deere Planting Equipment</td>
<td>3 Credits</td>
</tr>
<tr>
<td>JD 230</td>
<td>John Deere Harvesting Equipment</td>
<td>4 Credits</td>
</tr>
<tr>
<td>JD 235</td>
<td>John Deere Advanced Hydraulics II</td>
<td>5 Credits</td>
</tr>
<tr>
<td>JD 240</td>
<td>John Deere Advanced Power Trains II</td>
<td>4 Credits</td>
</tr>
<tr>
<td>JD 290</td>
<td>Cooperative Work Experience III</td>
<td>16 Credits</td>
</tr>
<tr>
<td>JD 292</td>
<td>Cooperative Seminar III</td>
<td>2 Credits</td>
</tr>
<tr>
<td>JD 297</td>
<td>Special Projects</td>
<td>1 - 16 Credits</td>
</tr>
<tr>
<td>MATH 040</td>
<td>Number Sense, Computation, and Math Study Skills</td>
<td>5 Credits</td>
</tr>
<tr>
<td>MATH 054</td>
<td>Special Topics in Math</td>
<td>1 - 5 Credits</td>
</tr>
<tr>
<td>MATH 070A</td>
<td>Proportional Reasoning and Applications</td>
<td>2.5 - 5 Credits</td>
</tr>
<tr>
<td>MATH 072B</td>
<td>Pre-Algebra</td>
<td>2.5 - 5 Credits</td>
</tr>
<tr>
<td>MATH 074C</td>
<td>Beginning Algebra I - Linear Equations</td>
<td>2.5 - 5 Credits</td>
</tr>
</tbody>
</table>

For the most current information see: [www.wwcc.edu](http://www.wwcc.edu)
MATH 076D Beginning Algebra II - Polynomials and Quadratics  2.5 - 5 Credits
Introduces operations on and evaluation of polynomial expressions, expressions with integer exponents, expressions and equations involving square roots, and quadratic equations. Prerequisite: Grade C- or higher in Math 74C, appropriate score on placement exam, or permission of the Mathematics Department.

MATH 078E Intermediate Algebra  2.5 - 5 Credits
Exposes students to the concepts of functions, domain and range, and focuses on exponential and logarithmic. Prerequisite: Grade C- or higher in Math 76D, appropriate score on placement test, or permission of the Mathematics Department.

MATH 080F Advanced Topics In Intermediate Algebra  2.5 - 5 Credits
Techniques used to simplify rational and radical expressions and to solve rational and radical equations will be covered. Prerequisite: Grade C- or higher in Math 78E, appropriate score on the placement exam, or permission of Mathematics Department.

MATH& 107 Math in Society [NS, Q]  5 Credits
Emphasizes mathematical reasoning, mathematical habits of thought, mathematical decision-making, mathematical communication, and the use of mathematical symbols, techniques and computations. Topics include proportional reasoning, mathematics of personal finance, probability, descriptive statistics, and growth and decay models (linear and exponential). Prerequisite: Grade C or higher in MATH 078E, appropriate score on placement test, or permission of the Mathematics Department. Formerly MATH 107, Mathematics: A Practical Experience.

MATH& 108 Math in Society II [NS, Q]  5 Credits
Continuation of MATH& 107. Emphasizes mathematical reasoning, mathematical habits of thought, mathematical decision-making, mathematical communication, and the use of mathematical symbols, techniques and computations. Topics include proportional reasoning, mathematics of personal finance, probability, descriptive statistics, and growth and decay models (linear and exponential). Prerequisite: Grade C or higher in MATH& 107, appropriate score on placement test, or permission of the Mathematics Department. Formerly MATH 108, Mathematics: A Practical Experience II.

MATH 110, Precalculus II.

MATH 115 Finite Mathematics [NS, Q]  5 Credits
Study of mathematical systems encountered in the work of behavioral, managerial, and social science students. Topics include systems of linear equations and inequalities, matrices, linear programming, introductory probability, mathematics of finance, and elementary Markov chains. Prerequisite: Grade C or higher in MATH 078E or permission of the Mathematics Department. Formerly MATH 115, Finite Mathematics.

MATH& 141 Precalculus I [NS, Q]  5 Credits
The first in a series of two courses designed to provide an in-depth study of functions to prepare students for advanced mathematics courses. Graphical analysis of concepts is emphasized through the use of technology. Topics include unit circle and triangle trigonometry, algebraic and graphical analysis of trigonometric and inverse trigonometric functions, applications of trigonometric functions, vectors, parametric equations, polar coordinates, and conic sections (optional). Prerequisite: Grade of C- or higher in MATH& 141 or permission of the Mathematics Department. Formerly MATH 110, Precalculus II.

MATH& 142 Precalculus II [NS, Q]  5 Credits
The second course of the precalculus sequence. Graphical analysis of concepts is emphasized through the use of technology. Topics include unit circle and triangle trigonometry, algebraic and graphical analysis of trigonometric and inverse trigonometric functions, applications of trigonometric functions, vectors, parametric equations, polar coordinates, and conic sections (optional). Prerequisite: Grade of C- or higher in MATH& 141, appropriate score on placement exam, or permission of the Mathematics Department. Formerly MATH 125, Calculus I.

MATH& 148 Business Calculus [NS, Q]  5 Credits
Introduction to calculus as applied to business and economics as well as the behavioral, social, and life sciences. Topics include functions, exponential and logarithmic function derivatives and their applications, integrals and their applications. Prerequisite: Grade of C- or higher in MATH& 141, appropriate score on placement exam, or permission of the Mathematics Department. Formerly MATH 121, Survey of Calculus.

MATH& 151 Calculus I [NS, Q]  5 Credits
The first in a sequence of four courses for students who are planning to major in engineering, mathematics, or the sciences. Graphical analysis of concepts is emphasized through the use of technology. Topics include limits and continuity, derivatives and their applications, and an introduction to the definite integral (optional). Prerequisite: Grade of C- or higher in MATH& 141 or permission of the Mathematics Department. Formerly MATH 124, Calculus with Analytic Geometry I.

MATH& 152 Calculus II [NS, Q]  5 Credits
Continuation of MATH& 151, topics include the definite integral, integration techniques and applications of integration. Prerequisite: Grade of C- or higher in MATH& 151 or permission of the Mathematics Department. Formerly MATH 125, Calculus with Analytic Geometry II. [NS]

MATH& 153 Calculus III [NS, Q]  5 Credits
Continuation of MATH& 152, topics include infinite sequences and series, parametric curves, vectors, and vector-valued functions. Prerequisite: Grade of C- or higher in MATH& 152 or permission of Mathematics Department. Formerly MATH 126, Calculus with Analytic Geometry III.

MATH 201 Introduction to Statistics [NS, Q]  5 Credits
Study of both descriptive and inferential statistics. Topics include data presentation, and analysis, measures of central tendency and dispersion, sampling distributions, parameter estimation hypothesis testing, and linear regression. Prerequisite: Grade of C or higher in MATH 078E, appropriate score on placement test, or permission of the Mathematics Department.

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### MATHEMATICS - MEDICAL ASSISTING

**MATH 205 Mathematics for Elementary School Teachers I [NS]** 5 Credits  
Designed for elementary school teachers focusing on methods of problem-solving, development and structure of number systems, and numerical algorithms applicable to elementary school mathematics. Prerequisite: Appropriate placement score or grade of C or higher in MATH 078E; or permission of Mathematics Department.

**MATH 206 Mathematics for Elementary School Teachers II [NS, Q]** 5 Credits  
Designed for elementary school teachers focusing on topics in geometry, statistics, and measurement pertaining to mathematics taught at the elementary school level. This course satisfies the quantitative skills requirement for the AA degree, provided that MATH 205 has also been completed with a grade of C- or higher.

**MATH 220 Linear Algebra [NS, Q]** 5 Credits  
Designed for students planning studies in mathematics, engineering, computer science, and physics. Topics include systems of linear equations, matrices, determinants, eigenvalues, eigenvectors, vector spaces, linear transformations, orthogonality, and diagonalization. Prerequisite: Grade C- or higher in MATH& 153 or permission of the Mathematics Department.

**MATH 238 Differential Equations [NS, Q]** 5 Credits  
First-order and higher-order differential equations, systems of linear differential equations, Laplace transforms, numerical methods, and qualitative analysis of ODE's will be discussed. Prerequisite: Grade C- or higher in MATH& 153 or permission of the Mathematics Department.

**MATH& 254 Calculus IV [NS, Q]** 5 Credits  
Introduction to multi-variable calculus. Topics include vector-valued functions, partial derivatives, directional derivatives, multiple integration, vector analysis, line and surface integrals, Green's and Stokes' theorems. Prerequisite: Grade C- or higher in MATH& 153 or permission of the Mathematics Department. Formerly MATH 224, Calculus & Analytical Geometry IV.

#### Medical Assisting

**MEDA 105 Health Occupations Mathematics** 5 Credits  
Intensive practical math designed for individuals entering the health occupations industry. Prerequisite: Appropriate placement score and instructor permission. Recommended: MATH 72B or OCSUP 106.

**MEDA 110 Human Body Structure and Function in Health and Disease I** 5 Credits  
Integration of basic structure and functions of the human body with disease processes that can affect body systems. This is the first of two human structure and function classes and includes an introduction to cellular function, as well as the anatomy and physiology of the integumentary, skeletal, muscular, neurologic, sensory, and digestive systems. Included are common diagnostic tests, treatments and possible prognoses for common disease processes that can affect each system. Prerequisite: Instructor permission.

**MEDA 114 Therapeutic Relationships** 2 Credits  
Emphasizes the importance of communication in the medical setting. Students will learn to utilize well-defined professional skills to increase the effectiveness of communication between themselves and their patients. Topics discussed will include how cultural influences, biases, and prejudices may affect interactions; listening skills; verbal and non-verbal communication; roadblocks to effective communication; and interview techniques. Prerequisite: Admission to the Medical Assisting program. Recommended: READ 088 or higher.

**MEDA 120 Human Body Structure and Function in Health and Disease II** 5 Credits  
Second of two human structure and function classes for the Medical Assisting program. Included is a discussion of the anatomy and physiology of the endocrine system, hemodynamics, the heart, circulation and blood vessels, immunity and the lymphatic system, respiratory system, urinary system, and reproductive system. Common diagnostic tests/treatments, pharmacological agents, and possible prognoses for common disease processes are included. Prerequisite: MEDA 110.

**MEDA 125 Clinical Procedures** 10 Credits  
Provides a foundation in basic patient exam techniques and minor procedures, and basic diagnostic laboratory techniques and procedures commonly performed in the physician's office or clinic. The lab portion of this course provides practice in the above techniques. Prerequisite: MEDA 120.

**MEDA 140 Medical Law and Ethics** 2 Credits  
Introduction to the legal and ethical side of medical settings. This course exposes the student to legal concepts, including standard of care, criminal and civil acts, contracts, negligence, ethical concepts, confidentiality, and scope of practice for health care professionals. Prerequisite: Admission to the Medical Assisting program. Recommended: READ 088 or higher.

**MEDA 144 Medical Office Administrative Procedures** 5 Credits  
Explores the flow of information in a medical office. Electronic Medical Record, a scheduling program, Office Hours, and MS Word software programs are utilized to process information and produce typical medical office documents, financial records, and insurance claims. Prerequisite: Admission to the Medical Assisting program.

**MEDA 145 Office Emergencies for Medical Assistants** 1 Credit  
Recognize emergencies and distinguish between emergency and non-emergency situations. It gives the student the knowledge and theory for appropriate response to office/clinic emergencies. Includes instruction in emergency response guidelines, documentation and emergency recordkeeping, recognizing victims of abuse and neglect, sudden illness, cardiac emergencies, CPR, psychological issues related to emergency response and burnout. Prerequisite: Admission to the Medical Assisting program. Recommended: READ 088 or higher.

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### MEDICAL ASSISTING - MUSIC

#### MEDA 149 Medical Insurance Procedures
**For Medical Assisting**  
5 Credits  
Provides a basic introduction to accurate billing procedures in the medical office and medical coding procedures used to obtain reimbursement for medical procedures or services. Billing topics include different types of health insurance, and preparation of insurance claim form, applying third party payor guidelines and collection procedures. Coding topics will include the proper application of CPT, ICD-9-CM and HCPCS coding along with an introduction to ICD-10-CM. Admission to the Medical Assisting Program students.

#### MEDA 191 Medical Assisting Practicum  
1 - 7 Credits  
Opportunity for students to use the skills they have acquired throughout the Medical Assisting program in a medical office or clinic. Co-requisite: MEDA 192.

#### MEDA 192 Medical Assisting Seminar  
2 Credits  
This hybrid seminar meets once a week and online for those students enrolled in MEDA 191. Students will discuss the weeks experiential activities in the clinical setting as well as the legal and ethical issues encountered, and will have the opportunity to ask questions and receive input from the instructor. Creation of resumes and job interviewing skills will be introduced. Additionally, students will receive guidance and preparation for participation in post-graduation certification examinations. Prerequisite: Completion of first three quarters of MA program. Co-requisite: MEDA 191.

<table>
<thead>
<tr>
<th><strong>Music</strong></th>
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</table>
| **MUSC 102 Music Fundamentals I**   | 3 Credits  
An introduction to basic musical skills for students interested in the piano, reading music, song-writing, and preparing for the study of Music Theory. Formerly MUS 102. |
| **MUSC 103 Music Fundamentals II**  | 3 Credits  
An introduction to basic musical skills for students interested in the piano, reading music, song-writing, and preparing for the study of Music Theory. Prerequisite: MUSC 102 or instructor permission. Formerly MUS 103. |
| **MUSC 104 Music Fundamentals III** | 3 Credits  
An introduction to basic musical skills for students interested in the piano, reading music, song-writing, and preparing for the study of Music Theory. Prerequisite: MUSC 103 or instructor permission. Formerly MUS 104. |
| **MUSC& 105 Music Appreciation [D, H]** | 5 Credits  
Emphasizes the development of a broad range of critical listening skills needed to appreciate the abundant variety of the world’s music. Includes guided hands-on musical activities, class participation, and active listening to music of many cultures. Course taken prior to fall 2010 also accepted for diversity requirement. Formerly MUS 101, Music Appreciation. |
| **MUSC 110 History of American Music [H]** | 5 Credits  
An audiovisual tour of America's truly original music, jazz, from European and West African roots, to the blues of the Mississippi Delta and the birth of jazz in New Orleans, to the music of Louis Armstrong, Duke Ellington, John Coltrane, Wynton Marsalis and many others. Formerly MUS 110. |
| **MUSC 113 Choral Singing I** | 1 - 3 Credits  
Beginning instruction in the techniques of group vocal performance in preparation for the summer musical. Formerly MUS 113. |
| **MUSC 114 Choral Singing II** | 3 Credits  
Intermediate instruction in the techniques of group vocal performance in preparation for the summer musical. Formerly MUS 114. |
| **MUSC 115 Choral Singing III** | 3 Credits  
Advanced instruction in the technique of group vocal performance in preparation for the summer musical. Formerly MUS 115. |
| **MUSC 116 College Voice I [HP]** | 1 - 2 Credits  
Voice training for interested students who can benefit from the study of the fundamentals of singing. Formerly MUS 116. |
| **MUSC 117 College Voice II [HP]** | 1 - 2 Credits  
Voice training for interested students who can benefit from the study of the fundamentals of singing. Formerly MUS 117. |
| **MUSC 118 College Voice III [HP]** | 1 - 2 Credits  
Voice training for interested students who can benefit from the study of the fundamentals of singing. Formerly MUS 118. |
| **MUSC 121 Stage/Pep Band I** | 2 Credits  
Continue musical interest in a band setting. Student must demonstrate reasonable proficiency on a band instrument and ability to participate in a group situation to enroll. Formerly MUS 121. |
| **MUSC 122 Stage/Pep Band II** | 2 Credits  
Continue musical interest in a band setting. Student must demonstrate reasonable proficiency on a band instrument and ability to participate in a group situation to enroll. Formerly MUS 122. |
| **MUSC 123 Stage/Pep Band III** | 2 Credits  
Continue musical interest in a band setting. Student must demonstrate reasonable proficiency on a band instrument and ability to participate in a group situation to enroll. Formerly MUS 123. |
| **MUSC 126 Jazz Combo I [HP]** | 1 - 3 Credits  
Jazz combos give students an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly including concerts and professional engagements. Prerequisite: Instructor permission. Formerly MUS 126. |

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MUSC 127 Jazz Combo II [HP]  1 - 3 Credits
Jazz combos give students an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly including concerts and professional engagements. Prerequisite: Instructor permission. Formerly MUS 127.

MUSC 128 Jazz Combo III [HP]  1 - 3 Credits
Jazz combos give students an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly including concerts and professional engagements. Prerequisite: Instructor permission. Formerly MUS 128.

MUSC 130 Piano Fundamentals/Blues  1 - 2 Credits
A hands-on approach to America's truly original music, the Blues. Basic piano techniques will be learned in a course piano setting with an emphasis on the improvisatory and universal language of the blues. Formerly MUS 130.

MUSC 131 Applied Music I  1 - 2 Credits
Private music lessons with a college-approved instructor. Two college transfer credits are granted for a one-hour lesson per week, and one credit for a half-hour lesson per week. Appropriate practice hours per lesson required. Formerly MUS 131.

MUSC 132 Applied Music II  1 - 2 Credits
Private music lessons with a college-approved instructor. Two college transfer credits are granted for a one-hour lesson per week, and one credit for a half-hour lesson per week. Appropriate practice hours per lesson required. Formerly MUS 132.

MUSC 133 Applied Music III  1 - 2 Credits
Private music lessons with a college-approved instructor. Two college transfer credits are granted for a one-hour lesson per week, and one credit for a half-hour lesson per week. Appropriate practice hours per lesson required. Formerly MUS 133.

MUSC& 141 Music Theory I [H]  5 Credits
Basic musical concepts and terminology through analysis, listening and keyboard practice; part writing, composition; ear training and sight singing. Formerly MUSC 106.

MUSC& 142 Music Theory II [H]  5 Credits
Basic musical concepts and terminology through analysis, listening and keyboard practice; part writing, composition; ear training and sight singing. Prerequisite: MUSC& 106 or instructor permission. Formerly MUSC 107.

MUSC& 143 Music Theory III [H]  5 Credits
Basic musical concepts and terminology through analysis, listening and keyboard practice; part writing, composition; ear training and sight singing. Prerequisite: MUSC& 107 or instructor permission. Formerly MUSC 108.

MUSC 144 Theater Orchestra I  1 - 5 Credits
Introduction to the development of specialized instrumental musical skills required to perform in an orchestra accompanying musical theater performances. Formerly MUS 144.

MUSC 145 Theater Orchestra II  1 - 5 Credits
Develops the specialized instrumental musical skills required to perform in an orchestra accompanying musical theater performances. Advanced instruction in performing with an orchestra providing accompaniment for a musical theater performance will be explored. Formerly MUS 145.

MUSC 146 Theater Orchestra III  1 - 5 Credits
Develops the specialized instrumental musical skills required to perform in an orchestra accompanying musical theater performances. Provides advanced instruction in performing with an orchestra providing accompaniment for a musical theater performance. Formerly MUS 146.

MUSC 151 Walla Walla Symphony/Community Band or Walla Walla Symphony Chorale I  1 Credit
Instrumental or vocal participation in a symphonic organization with rehearsal every Monday evening. Four to five concerts are presented each academic year. Admission to the symphony is open to all who can perform with competency. Formerly MUSC 141.

MUSC 152 Walla Walla Symphony/Community Band or Walla Walla Symphony Chorale II  1 Credit
Instrumental or vocal participation in a symphonic organization with rehearsal every Monday evening. Four to five concerts are presented each academic year. Admission to the symphony is open to all who can perform with competency. Formerly MUSC 142.

MUSC 153 Walla Walla Symphony/Community Band or Walla Walla Symphony Chorale III  1 Credit
Instrumental or vocal participation in a symphonic organization with rehearsal every Monday evening. Four to five concerts are presented each academic year. Admission to the symphony is open to all who can perform with competency. Formerly MUSC 143.

MUSC 154 Choral Vocal Ensemble I [HP]  2 Credits
Choral participation providing vocal experience for all interested students who have a background in music and singing. Formerly MUS 161.

MUSC 155 Choral Vocal Ensemble II [HP]  2 Credits
Choral participation providing vocal experience for all interested students who have a background in music and singing. Formerly MUS 162.

MUSC 156 Choral Vocal Ensemble III [HP]  2 Credits
Choral participation providing vocal experience for all interested students who have a background in music and singing. Formerly MUS 163.

MUSC 157 Spanish Chorus [HP]  2 Credits
Learn vocal music in Spanish in a variety of styles drawn from the canon of Latin American song from 1500 to the present. The group will present their repertoire in public performance on the campus and in the community. Formerly MUS 164.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 221</td>
<td>Stage/Pep Band IV [HP]</td>
<td>2</td>
<td>Voice training for interested students who can benefit from the study of the fundamentals of singing. Formerly MUS 216.</td>
</tr>
<tr>
<td>MUSC 217</td>
<td>College Voice V [HP]</td>
<td>1 - 2</td>
<td>Voice training for interested students who can benefit from the study of the fundamentals of singing. Formerly MUS 217.</td>
</tr>
<tr>
<td>MUSC 218</td>
<td>College Voice VI [HP]</td>
<td>1 - 2</td>
<td>Voice training for interested students who can benefit from the study of the fundamentals of singing. Formerly MUS 218.</td>
</tr>
<tr>
<td>MUSC 221</td>
<td>Stage/Pep Band IV</td>
<td>2</td>
<td>Continue musical interest in a band setting. Student must demonstrate reasonable proficiency on a band instrument and ability to participate in a group situation to enroll. Formerly MUS 221.</td>
</tr>
<tr>
<td>MUSC 222</td>
<td>Stage/Pep Band V</td>
<td>2</td>
<td>Continue musical interest in a band setting. Student must demonstrate reasonable proficiency on a band instrument and ability to participate in a group situation to enroll. Formerly MUS 222.</td>
</tr>
<tr>
<td>MUSC 223</td>
<td>Stage/Pep Band VI</td>
<td>2</td>
<td>Continue musical interest in a band setting. Student must demonstrate reasonable proficiency on a band instrument and ability to participate in a group situation to enroll. Formerly MUS 223.</td>
</tr>
<tr>
<td>MUSC 226</td>
<td>Jazz Combo IV [HP]</td>
<td>1 - 3</td>
<td>Jazz combos give students an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly including concerts and professional engagements. Prerequisite: Instructor permission. Formerly MUS 226.</td>
</tr>
<tr>
<td>MUSC 227</td>
<td>Jazz Combo V [HP]</td>
<td>1 - 3</td>
<td>Jazz combos provide an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly including concerts and professional engagements. Prerequisite: Instructor permission. Formerly MUS 227.</td>
</tr>
<tr>
<td>MUSC 228</td>
<td>Jazz Combo VI [HP]</td>
<td>1 - 3</td>
<td>Jazz combos provide an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly including concerts and professional engagements. Prerequisite: Instructor permission. Formerly MUS 228.</td>
</tr>
<tr>
<td>MUSC 231</td>
<td>Applied Music IV</td>
<td>1 - 2</td>
<td>Private music lessons with a college-approved instructor. Two college transfer credits are granted for a one-hour lesson per week, and one credit for a half-hour lesson per week. Appropriate practice hours per lesson required. Formerly MUS 231.</td>
</tr>
<tr>
<td>MUSC 232</td>
<td>Applied Music V</td>
<td>1 - 2</td>
<td>Private music lessons with a college-approved instructor. Two college transfer credits are granted for a one-hour lesson per week, and one credit for a half-hour lesson per week. Appropriate practice hours per lesson required. Formerly MUS 232.</td>
</tr>
<tr>
<td>MUSC 233</td>
<td>Applied Music VI</td>
<td>1 - 2</td>
<td>Private music lessons with a college-approved instructor. Two college transfer credits are granted for a one-hour lesson per week, and one credit for a half-hour lesson per week. Appropriate practice hours per lesson required. Formerly MUS 233.</td>
</tr>
<tr>
<td>MUSC 241</td>
<td>Music Theory IV [H]</td>
<td>5</td>
<td>Basic musical concepts and terminology through analysis, listening and keyboard practice; part writing, composition; ear training and sight singing. Prerequisite: MUSC&amp; 108 or instructor permission. Formerly MUSC 206.</td>
</tr>
<tr>
<td>MUSC 242</td>
<td>Music Theory V [H]</td>
<td>5</td>
<td>Basic musical concepts and terminology through analysis, listening and keyboard practice; part writing, composition; ear training and sight singing. Prerequisite: MUSC&amp; 241 or instructor permission. Formerly MUSC 207.</td>
</tr>
<tr>
<td>MUSC 243</td>
<td>Music Theory VI [H]</td>
<td>5</td>
<td>Basic musical concepts and terminology through analysis, listening and keyboard practice; part writing, composition; ear training and sight singing. Prerequisite: MUSC&amp; 242 or instructor permission. Formerly MUSC 208.</td>
</tr>
<tr>
<td>MUSC 251</td>
<td>Walla Walla Symphony/Community Band or Walla Walla Symphony Chorale IV</td>
<td>1</td>
<td>Instrumental or vocal participation in a symphonic organization with rehearsal every Monday evening. Four to five concerts are presented each academic year. Admission to the symphony is open to all who can perform with competency. Formerly MUSC 241.</td>
</tr>
<tr>
<td>MUSC 252</td>
<td>Walla Walla Symphony/Community Band or Walla Walla Symphony Chorale V</td>
<td>1</td>
<td>Instrumental or vocal participation in a symphonic organization with rehearsal every Monday evening. Four to five concerts are presented each academic year. Admission to the symphony is open to all who can perform with competency. Formerly MUSC 242.</td>
</tr>
<tr>
<td>MUSC 253</td>
<td>Walla Walla Symphony/Community Band or Walla Walla Symphony Chorale VI</td>
<td>1</td>
<td>Instrumental or vocal participation in a symphonic organization with rehearsal every Monday evening. Four to five concerts are presented each academic year. Admission to the symphony is open to all who can perform with competency. Formerly MUSC 243.</td>
</tr>
<tr>
<td>MUSC 261</td>
<td>Vocal Ensemble IV [HP]</td>
<td>2</td>
<td>Choral participation providing vocal experience for all interested students who have a background in music and singing. Formerly MUS 261.</td>
</tr>
<tr>
<td>MUSC 262</td>
<td>Vocal Ensemble V [HP]</td>
<td>2</td>
<td>Choral participation providing vocal experience for all interested students who have a background in music and singing. Formerly MUS 262.</td>
</tr>
<tr>
<td>MUSC 263</td>
<td>Vocal Ensemble VI [HP]</td>
<td>2</td>
<td>Choral participation providing vocal experience for all interested students who have a background in music and singing. Formerly MUS 263.</td>
</tr>
<tr>
<td>MUSC 299</td>
<td>Special Projects</td>
<td>1 - 5</td>
<td>Provides an opportunity for individual and small group vocal or instrumental preparation and performance. Formerly MUS 299.</td>
</tr>
</tbody>
</table>
NURSING

NURS 100 Fundamentals of Nursing  6 Credits
Fundamental principles underlying nursing care are presented. The focus is upon providing care to middle adult and geriatric clients. The concepts of critical thinking, caring, and professional behavior are introduced. Content related to communication, human relationships, health promotion, maintenance, and restoration, medical asepsis, use of the nursing process and medication administration is presented. Prerequisite: Admission to Nursing program. Co-requisite: NURS 110 and 196.

NURS 101 Beginning Nursing Concepts I  6 Credits
A continuation of the principles of nursing care introduced in NURS 100. The focus is on providing care for clients of all ages who are experiencing normal life processes or common/chronic disease processes in selected systems. Prerequisites: NURS 100 and 110. Co-requisite: NURS 111.

NURS 102 Beginning Nursing Concepts II  6 Credits
A continuation of NURS 101. The focus is on providing care to clients of all ages experiencing normal life processes or common/chronic disease processes in selected body systems. Prerequisites: NURS 101 and 111. Co-requisite: NURS 112 and 197.

NURS 103 Practical Nursing  6 Credits
The focus of this course is preparation to complete the NCLEX-PN and enter practice as a PN. Prerequisites: NURS 102 and 112. Co-requisite: NURS 113.

NURS 104 LPN to ADN Transition  6 Credits
The focus of this course is assisting LPNs admitted to the second year of the nursing program to fulfill program requirements. Use of the nursing process, critical thinking, and completion of nursing skills is emphasized. Prerequisites: Admission to second year of Nursing program. Co-requisite NURS 114.

NURS 110 Fundamentals Practicum  4 Credits
An application of theory from NURS 100. The focus is on providing care for older adults in long-term care facilities. Prerequisite: Admission to the Nursing program. Co-requisite: NURS 100.

NURS 111 Practicum I  4 Credits
An application of theory from NURS 101. The focus is on providing care for clients of all ages in acute care facilities. Prerequisite: NURS 100 and 110. Co-requisite: NURS 101.

NURS 112 Practicum II  4 Credits
An application of theory from NURS 102. The focus is on providing care for clients of all ages in acute care facilities. Prerequisites: NURS 101 and 111. Co-requisite: NURS 102.

NURS 113 Practical Nursing Practicum  6 Credits
An application of theory from NURS 103. The focus is on providing care for clients in acute care and community based settings. An additional focus is on transition to the role of Practical Nurse. Prerequisites: NURS 102 and 112. Co-requisite: NURS 103.

NURS 114 Practicum: LPN to ADN Transition  6 Credits
Focuses on enhancing skills for LPNs entering the second year of the nursing program. Care is provided in acute care facilities and community based settings. Prerequisite: Admission to second year of the Nursing program. Co-requisite: NURS 104.

NURS 196 Professional Development I  1 Credit
Part one of a three-quarter course on professional development. This course is taught fall quarter to beginning nursing students and introduces the profession of nursing. Prerequisite: Admission to the Nursing program. Co-requisite: NURS 100 and 110.

NURS 197 Professional Development II  1 Credit
Part two of a three-quarter course on professional development. This course introduces the student to the legal and ethical responsibilities of the Practical Nurse. Prerequisite: NURS 196. Co-requisite: NURS 102 and 112.

NURS 200 Advanced Nursing Concepts I  7 Credits
A continuation of nursing principles introduced in NURS 102. The focus is on providing care to clients with complex care needs related to disturbances in mental health, disease processes in selected body systems, and managing care for groups of clients. Prerequisites: NURS 102 and 112 or transition applicant. Co-requisite: NURS 210.

NURS 201 Advanced Nursing Concepts II  6 Credits
A continuation of the nursing principles introduced in NURS 200. The focus is on providing care to clients with complex care needs related to obstetrical conditions and disease processes in selected body systems. Prerequisites: NURS 200 and 210. Co-requisite: NURS 211 and 232.

NURS 202 Advanced Nursing Concepts III  7 Credits
Focuses on providing care to clients with complex care needs in intensive care and emergency situations and disease processes in selected body systems. Prerequisites: NURS 201 and 211. Co-requisite: NURS 212.

NURS 210 Practicum III  6 Credits
An application of theory from NURS 200. The focus is on providing care for clients in acute care, psychiatric settings and in the community. Prerequisites: NURS 102 and 112 or transition applicant. Co-requisite: NURS 200.

NURS 211 Practicum IV  6 Credits
An application of theory from NURS 201. The focus is on providing care for clients in acute care, psychiatric settings and in the community. Prerequisites: NURS 200 and 210. Co-requisite: NURS 201 and 232.

NURS 212 Practicum V  6 Credits
An application of theory from NURS 202. The focus is on providing care for clients in acute care, psychiatric settings and in the community. Each student completes a preceptor experience as a transition to practice as a registered nurse. Prerequisites: NURS 201 and 211. Co-requisite: NURS 202.

NURS 232 Professional Development III  1 Credit
Part three of a three-part course on professional development. This course expands on the legal and ethical responsibilities in nursing and prepares the student for the responsibilities of the RN role. Prerequisite: NURS 197. Co-requisite: NURS 201 and 211.

For the most current information see: www.wwcc.edu

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Nursing - Oceanography

NURS 297 Special Projects 1 - 5 Credits
Project-oriented experiences in the area or applications not provided or covered in the standard nursing curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.

Nutrition

NUTR& 101 Nutrition [NS] 5 Credits
Study of food nutrients and application to normal health throughout the life cycle, including social-economic, cultural, ethnic, and psychological implications of food. This course does not include a lab. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088; CHEM& 110 or high school chemistry. Formerly NUTR 165, General Nutrition.

Occupational Support

OCSUP 009 Career Development for Life Transitions 1 - 8 Credits
A career development and life planning course that specifically addresses the needs of displaced homemakers and those in similar circumstances with instruction in basic workplace skills, career development, budget/finance, time/stress management, and improving self-esteem. Students focus on career goals as a basis for learning effective strategies to decrease barriers to employment success and self-sufficiency. This course also provides a support group for students during a critical time of transition from the home or unemployment to the workplace. There are no class fees for eligible candidates.

OCSUP 101 Job Psychology: Workplace and Educational Success Skills 3 Credits
Explore how to develop effective workplace relationships and understand how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective skills to be applied to workplace and educational environments. These learning skills include memory, concentration, time management, textbook reading, and exam preparation. Human relations topics include group dynamics, employee and management roles, and conflict resolution.

OCSUP 102 Oral Communication in the Workplace 3 Credits
Emphasizes the development of content and relationship for effective oral communication. Topics include oral communication skills, interpersonal communication skills, effective listening, and intercultural communication.

OCSUP 103 Job Seeking Skills 3 Credits
Provides activities to develop each student into an effective, successful job applicant. Areas studied include labor market analysis, skills identification, applications, resume and letter writing, and interview skills. Students learn what employers look for when hiring a perspective employee, how to make oneself a more competitive job seeker, and how networking and informational interviews result in employment opportunities. Recommended for second year professional-technical students.

OCSUP 106 Applied Mathematics I 5 Credits
Offers review and instruction in whole numbers, decimals, fractions, measurement ratios and proportions, percentages, algebra, and geometry. Topics include development and applications of signed numbers, measurement, metric system, formulas and equations, right triangle, trigonometry, graphical representation, and interpretations of data. Prerequisite: Appropriate placement score, or MATH 040.

OCSUP 107 Introduction to Technical Mathematics 5 Credits
Integrated course of algebra, geometry and trigonometry. Practical applications to vocational and technical programs are emphasized through the use of contextualized small-group classroom activities and guided practical problem solving. Topics include graphing in the Cartesian coordinate system; graphing and solving linear equations and systems of linear equations; geometric concepts of angles (degree and radian measure) and triangles, including the Pythagorean theorem and similar triangles; trigonometric concepts of sine, cosine, and tangent, and solving right triangles. Prerequisite: Grade of C- or better in OCSUP 106 or MATH 72B, or appropriate placement score.

OCSUP 108 Applied Mathematics II 5 Credits
Provides review and instruction of the basic fundamental principles of geometry and trigonometry. Development and applications of measurement of angles, shapes and their properties, areas and volumes of triangles, polygons, cylinders, cones, circles, ellipses, irregular shapes, right triangle, trigonometric functions, and laws of sine and cosine. The emphasis is on combining academics and technical skills with real-life context for learning. Prerequisite: Grade of C- or better in OCSUP 107, or appropriate placement score.

OCSUP 299 Principles of Leadership 1 Credit
Encourage students to develop an awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team building, and managing stress.

Oceanography

OCEA& 101 Introduction to Oceanography w/ Lab [NS] 5 Credits
Fundamental principles of ocean science; the geography and geology of ocean basin; chemistry of sea water; physical dynamics of currents, waves, and tides; coastal processes; and the biology of diverse ecosystems. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087 or permission of the Science Division Chair or designee. Recommended: READ 088. Formerly OCE 101, Intro to Oceanography. [NS]

For the most current information see: www.wwcc.edu
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 024</td>
<td>Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to the keyboard for beginning</td>
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<tr>
<td></td>
<td>keyboard users or for students wishing to review</td>
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<td></td>
<td>the keyboard by touch.</td>
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<tr>
<td>OT 025</td>
<td>Keyboard Speed-Building</td>
<td>1 - 5</td>
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<tr>
<td></td>
<td>Provides opportunity to increase keyboarding</td>
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<td></td>
<td>speed and accuracy. Course includes assessment</td>
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<td>and/or correction of technique plus the use of</td>
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<td>software programs designed to work on</td>
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<td></td>
<td>individual accuracy and speed weaknesses. Ability</td>
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<td>to key by touch required to enroll.</td>
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<tr>
<td>OT 115</td>
<td>Medical Transcription I</td>
<td>5</td>
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<tr>
<td></td>
<td>Fundamental course in transcribing medical</td>
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<td></td>
<td>documents from sound files using word</td>
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<td></td>
<td>processing software and foot pedal. Instruction</td>
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<td></td>
<td>on developing listening skills by applying</td>
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<td></td>
<td>correct grammar, punctuation, and format</td>
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<td>to medical documents. Designed specifically for</td>
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<td></td>
<td>medical majors. Recommended: BUS 136 and OT 125.</td>
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<tr>
<td>OT 116</td>
<td>Medical Transcription II</td>
<td>5</td>
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<tr>
<td></td>
<td>Advanced course in transcribing medical</td>
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<td>documents from sound files using word</td>
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<td>processing software and foot pedal. Students</td>
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<td>develop skills by learning and applying correct</td>
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<td>number format, capitalization, punctuation, and</td>
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<td>abbreviations in the medical documents.</td>
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<td>Prerequisite: OT 115. Recommended: BUS 136 and</td>
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<td></td>
<td>OT 125.</td>
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<tr>
<td>OT 124</td>
<td>Office Procedures</td>
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<tr>
<td></td>
<td>This course bridges the gap between the</td>
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<td>classroom and business environment with</td>
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<td>students demonstrating the ability to</td>
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<td>perform, at a professional level, the practices</td>
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<td>and procedures typical of today’s office</td>
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<td>environment. Study and practice of office</td>
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<td>procedures using current technology will be</td>
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<td>emphasized. Procedural areas include</td>
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<td>receptionist duties, mail handling and</td>
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<td>reprographics, travel arrangements, file</td>
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<td>management, data storage, operation of</td>
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<td></td>
<td>Windows GUI and basic computer maintenance and</td>
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<td></td>
<td>troubleshooting. Formerly OT 200 &amp; OT 122.</td>
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<tr>
<td>OT 125</td>
<td>Word Processing Applications</td>
<td>5</td>
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<tr>
<td></td>
<td>Document processing using MS Word taught in</td>
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<td>conjunction with formatting theory for</td>
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<td>business documents. Continued development of</td>
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<td></td>
<td>keyboarding speed and accuracy is provided.</td>
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<td></td>
<td>Ability to key by touch at a minimum of 30</td>
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<td>WPM is required to enroll.</td>
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<tr>
<td>OT 126</td>
<td>Advanced Word Processing Applications</td>
<td>5</td>
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<tr>
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<td>Introduces and develops advanced formatting and</td>
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<td>word processing functions for the creation of</td>
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<td>business documents. Continued development of</td>
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<td>keyboarding speed and accuracy as well as</td>
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<td>proofreading and editing skills is provided.</td>
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<tr>
<td></td>
<td>Prerequisite: OT 125.</td>
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<tr>
<td>OT 161</td>
<td>Practical Accounting</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Studies accounting principles and applies</td>
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<td></td>
<td>bookkeeping procedures that can be applied to a</td>
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<td>variety of business operations. Emphasis placed</td>
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<td>on the analysis, journalization and posting of</td>
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<td>transactions typical of a small office. Students</td>
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<td>also formulate and interpret financial</td>
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<td>statements; record adjusting, closing, and</td>
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<td>reversing entries; reconcile bank statements;</td>
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<td>manage petty cash; account for bad debt; and</td>
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<td>perform payroll calculations and entries.</td>
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For the most current information see: www.wwcc.edu
TST 158 Power Trains 1 - 10 Credits
A comprehensive study of power train fundamentals, component repair, and diagnostics including hydrostatic transmissions used in outdoor power from lawn and garden to compact utility equipment. Necessary for EETC Technician Certification.

TST 159 Generator Fundamentals 5 Credits
Comprehensive fundamentals, teardown, troubleshooting, and testing of both brush and brushless generators. Prerequisite: TST 156.

TST 191 Cooperative Work Experience 1 - 12 Credits
Opportunity to work in jobs directly related to the turf equipment industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.

TST 192 Cooperative Seminar 2 Credits
Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: TST 191.

TST 199 Special Topics 1 - 5 Credits
Study and train to meet established local needs in the turf equipment industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

TST 255 Compact Diesel Engines 1 - 17 Credits
In-depth study on the theory, operation, service procedures, and troubleshooting necessary to maintain modern compact diesels used in compact tractor, turf equipment, and other commercial equipment.

TST 256 Reels and Mowing Systems 1 - 17 Credits
In-depth study of various reel maintenance practices, reel styles, grinding techniques, rebuilding, and troubleshooting. Study of rotary mowers, their drive systems, spindles, and blade sharpening, used in commercial golf and turf mowers.

TST 297 Special Projects 1 - 18 Credits
Project-oriented experiences in the area or applications not covered in the standard turf equipment curriculum. Prerequisite: Instructor permission.

TST 299 Leadership 1 Credit
Students develop an awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress.

PHIL& 101 Introduction to Philosophy [H] 5 Credits
Study of the basic ideas in western philosophy. Recommended: READ 088 or higher and ENGL 097. Formerly PHIL 101, Intro to Philosophy I.
PHILOLOGY - PHYSICAL EDUCATION AND RECREATION

PHIL 103 Asian Philosophy [D, H]  5 Credits
The central ideas, metaphors, and images of Hinduism, Buddhism, and Taoism.

PHIL& 117 Traditional Logic [H, Q]  5 Credits
Introduction to systematic techniques for assessing the validity of arguments: Venn Diagrams, truth tables, abbreviated truth tables, propositional calculus including rules of inference, and axioms of replacement. Prerequisite: Grade C or higher in MATH 78E. [Q] or [H]

PHIL 120 Critical Thinking [H]  5 Credits
Study of the attitudes, skills, and theories involved with critical thinking, including formal and informal logic.

PHIL 131 Introduction to Ethics [H]  5 Credits
Discussion and study of the original writings of classic moral philosophers. Examination of the moral theories of Plato, Aristotle, Epicurus, Epictetus, Mill, Kant, and Nietzsche will be analyzed.

PHIL 152 Social and Political Philosophy [H]  5 Credits
Analysis of the various theories and selections of writings from major western political philosophers such as Plato, Hobbes, Locke, Rousseau, Mill, Marx and Rawls. In addition, Martha Nussbaum and key feminist political theorists such as Julia Kristeva will be discussed. Recommended: Phil&101, READ 088 or higher and ENGL 097. [H]

PHIL 205 Philosophy of Religion [H]  5 Credits
Examines the notions of God through topics which include the existence and nature of God, the problem of evil, issues in religious ethics, and the relationship between faith and reason, including the question of miracles. Recommended: READ 088 or higher and ENGL 097.

Physical Education and Recreation

HPER 103 Cross Training Cardio [PE]  1 Credit
A total body workout combining kickboxing, step, intervals, resistance training, Pilates, sports conditioning, dance and just about anything cardio or sculpting. Designed to help cross train your body. Abdominal training included.

HPER 105 Jogging [PE]  1 Credit
Sports activity course emphasizing methods, benefits, and techniques of jogging to encourage fitness, pleasure, and safety.

HPER 106 Karate [PE]  1 Credit
Sports activity course emphasizing the skills and mental discipline of karate.

HPER 107 Tone Zone I [PE]  1 Credit
Provides students with an assessment of their physical fitness, and individualized exercise prescription, and an understanding of fitness and health concepts.

HPER 108 Tone Zone II [PE]  1 Credit
Provides students with an assessment of their physical fitness, an individualized exercise prescription, and an understanding of fitness and health concepts.

HPER 109 Tone Zone III [PE]  1 Credit
Provides students with an assessment of their physical fitness, an individualized exercise prescription, and an understanding of fitness and health concepts.

HPER 110 Speed Training I [PE]  1 Credit
Sports activities course emphasizing speed and agility.

HPER 111 Cross Training Cardio II [PE]  1 Credit
A total body workout combining kickboxing, step, intervals, resistance training, Pilates, sports conditioning, dance and just about anything cardio or sculpting. Designed to help cross train your body. Abdominal training included.

HPER 112 Tone Zone for Corrections & Law Enforcement  1 Credit
Tone Zone for Corrections & Law Enforcement (CLE) - A class designed specifically for those in the CLE program. Students will be expected to meet the same requirements listed in HPER 107, 108 & 109 and are required to pass the Corrections and Law Enforcement Physical Standards Testing. Prerequisite: Instructor permission. For students in their final quarter of completion of the CLE certificate program. Must also complete criminal background check and medical release.

HPER 113 Recreational Games [PE]  1 Credit
Sports activity course emphasizing games for various age and skill groups.

HPER 116 Beginning Tennis [PE]  1 Credit
Sports activity course emphasizing rules, skills, and strategies of tennis.

HPER 117 Intermediate Tennis [PE]  1 Credit
Sports activity course emphasizing skills, rules, and strategies of competitive tennis will be covered.

HPER 118 Skiing/Snowboarding I [PE]  1 Credit
Sports activities course at Bluewood Recreation Area, emphasizing safety, equipment, skills, and practice related to snow skiing and snowboarding. Students must attend orientation. Additional fee required.

HPER 120 Beginning Golf [PE]  1 Credit
Provides instruction in the basics of golf in order to develop correct technique from the first swing onward.

HPER 121 Intermediate Golf [PE]  1 Credit
Skills, rules, and strategies of competitive golf will be covered.

HPER 122 Weight Training I [PE]  1 Credit
Sports activities course emphasizing the safety, techniques, benefits, methods, and practice of weight training.

HPER 123 Weight Training II [PE]  1 Credit
Sports activities course emphasizing the safety, techniques, benefits, methods, and practice of weight training.

HPER 124 Weight Training III [PE]  1 Credit
Sports activities course involving conditioning with various weight devices and involving development of personal goals and conditioning program.

For the most current information see: www.wwcc.edu
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPER 125</td>
<td>Bowling [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing the safety, rules, skills, and</td>
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<td></td>
<td></td>
<td></td>
<td>strategies of bowling.</td>
</tr>
<tr>
<td>HPER 128</td>
<td>Aqua Aerobics [PE]</td>
<td>1</td>
<td>A cardio workout in the pool with less impact on your joints.</td>
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<tr>
<td>HPER 129</td>
<td>Basic Swimming [PE]</td>
<td>1</td>
<td>Teaches the basic swimming strokes, water safety skills and proper</td>
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<td>pre-workout stretching for all swimmers, beginning to advanced.</td>
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<tr>
<td>HPER 130</td>
<td>Lifeguard Training [PE]</td>
<td>1</td>
<td>Teaches the skills and knowledge needed to prevent and respond to</td>
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<td>aquatic emergencies. This course prepares the student to recognize and</td>
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<td>respond quickly and effectively to emergencies and prevent drowning and</td>
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<td>injuries. Successful completion of this course results in an American Red</td>
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<td></td>
<td>Cross Lifeguard Training and CPR for the Professional Rescuer certifications.</td>
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<tr>
<td>HPER 131</td>
<td>Skiing/Snowboarding II [PE]</td>
<td>1</td>
<td>Sports activities course, skiing at Bluewood Recreation Area; students</td>
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<td>must attend orientation; dates for orientation and skiing to be published in</td>
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<td>the quarterly schedule. Additional fee required.</td>
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<tr>
<td>HPER 132</td>
<td>Aqua Aerobics II [PE]</td>
<td>1</td>
<td>A cardio workout in the pool with less impact on your joints.</td>
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<tr>
<td>HPER 133</td>
<td>Aqua Aerobics III [PE]</td>
<td>1</td>
<td>A cardio workout in the pool with less impact on your joints.</td>
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<tr>
<td>HPER 134</td>
<td>Karate II [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing the philosophy, safety, rules,</td>
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<td></td>
<td>skills, techniques, and strategies of competitive karate.</td>
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<tr>
<td>HPER 136</td>
<td>Basketball [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing the safety, rules, skills, and</td>
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<td></td>
<td></td>
<td>strategies of basketball.</td>
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<tr>
<td>HPER 141</td>
<td>All-Terrain Volleyball [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing the safety, rules, techniques,</td>
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<td>skills, and strategies of volleyball as played on various terrains.</td>
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<tr>
<td>HPER 144</td>
<td>Walking I [PE]</td>
<td>1</td>
<td>Students to learn the proper way to walk to enhance physical fitness and to</td>
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<td>develop a lifelong skill.</td>
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<tr>
<td>HPER 145</td>
<td>Racquetball I [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing racquetball fundamentals, strategies,</td>
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<td></td>
<td></td>
<td></td>
<td>and appropriate conditioning.</td>
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<tr>
<td>HPER 146</td>
<td>Racquetball II [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing the safety, rules, strategies, and</td>
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<td></td>
<td></td>
<td></td>
<td>techniques of playing racquetball competitively.</td>
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<tr>
<td>HPER 147</td>
<td>Walking II [PE]</td>
<td>1</td>
<td>Learn the proper way to walk, enhancing and evaluating their own fitness</td>
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<td>level while developing a lifetime activity.</td>
</tr>
<tr>
<td>HPER 148</td>
<td>Walking III [PE]</td>
<td>1</td>
<td>Learn the proper way to walk, enhancing and evaluating their own fitness</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>level while developing a lifetime activity.</td>
</tr>
<tr>
<td>HPER 154</td>
<td>Speed Training II [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing speed and agility.</td>
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<tr>
<td>HPER 155</td>
<td>Speed Training III [PE]</td>
<td>1</td>
<td>Sports activities course emphasizing speed and agility.</td>
</tr>
<tr>
<td>HPER 156</td>
<td>Yoga I [PE]</td>
<td>1</td>
<td>Through this on campus course, techniques and tools of yoga will be taught</td>
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<td></td>
<td></td>
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<td>and learned. Yogic poses and stress management methods will be obtained</td>
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<td>through the introduction to relaxation exercises of breath work.</td>
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<td>Understanding the anatomy of the body through the yoga pose will be</td>
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<td>experienced.</td>
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<tr>
<td>HPER 157</td>
<td>Yoga II [PE]</td>
<td>1</td>
<td>Through this on campus course, techniques and tools of yoga will be taught</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>and learned. Yogic poses and stress management methods will be obtained</td>
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<td>through the introduction to relaxation exercises of breath work.</td>
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<td>Understanding the anatomy of the body through the yoga pose will be</td>
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<td>experienced.</td>
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<td>HPER 160</td>
<td>Basic Rodeo Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing skills, rules and strategies of college</td>
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<td></td>
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<td></td>
<td>rodeo.</td>
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<tr>
<td>HPER 161</td>
<td>Intermediate Rodeo Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing skills, rules and strategies of college</td>
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<td>rodeo.</td>
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<tr>
<td>HPER 162</td>
<td>Advanced Rodeo Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing skills, rules and strategies of college</td>
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<td>rodeo.</td>
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<tr>
<td>HPER 166</td>
<td>Beginning Yoga I [PE]</td>
<td>1</td>
<td>Introduction to the philosophy and practice of the ancient art of Yoga.</td>
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<td></td>
<td>Learn the basic physical components of Yoga practice as well as the essential</td>
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<td>HPER 167</td>
<td>Beginning Yoga II [PE]</td>
<td>1</td>
<td>Continues the exploration of the philosophy and practice of the ancient art</td>
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<td>of Yoga. Students will continue to learn the physical components of Yoga</td>
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<td>practice as well as the essential written principles of Yoga. Co-requisite:</td>
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<td>HPER 166.</td>
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<tr>
<td>HPER 171</td>
<td>Basketball Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing skills, rules and strategies of</td>
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<td></td>
<td></td>
<td>basketball.</td>
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<tr>
<td>HPER 172</td>
<td>Baseball/Softball Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing skills, rules and strategies of</td>
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<td></td>
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<td></td>
<td>baseball.</td>
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<tr>
<td>HPER 174</td>
<td>Volleyball Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing skills, rules and strategies of</td>
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<td></td>
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<td>volleyball.</td>
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<tr>
<td>HPER 176</td>
<td>Golf Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing skills, rules and strategies of</td>
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<td></td>
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<td>golf.</td>
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<tr>
<td>HPER 177</td>
<td>Soccer Skills and Rules [PE]</td>
<td>2</td>
<td>Sports activity course emphasizing the rules, skills, techniques, methods,</td>
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<td></td>
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<td>and strategies of competitive soccer.</td>
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</tbody>
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For the most current information see: www.wwcc.edu
HPER 181 Basketball Methods and Materials [PE] 2 Credits
Methods and materials course emphasizing knowledge and ability to apply various methods of play, as well as knowledge of developments and uses for pertinent equipment and materials.

HPER 182 Baseball/Softball Methods and Materials [PE] 2 Credits
Methods and materials course emphasizing knowledge and ability to apply various methods of play, as well as knowledge of developments and uses for pertinent equipment and materials.

HPER 184 Volleyball Methods and Materials [PE] 2 Credits
Methods and materials course emphasizing knowledge and ability to apply various methods of play as well as developments and uses for pertinent equipment and materials.

HPER 186 Golf Methods and Materials [PE] 2 Credits
Methods and materials course emphasizing knowledge and ability to apply various methods of play as well as developments and uses for pertinent equipment and materials.

HPER 187 Soccer Methods and Materials [PE] 2 Credits
Overview of several different methods of play and the latest developments in pertinent equipment and materials.

HPER 188 Basic Fitness I [PE] 1 Credit
This fitness course includes three components: workout program, research paper and quizzes, and projects and online discussions. Topics include developing a personalized workout program, nutrition, exercise principles, and general health.

HPER 189 Basic Fitness II [PE] 1 Credit
This fitness course includes three components: workout program, research paper and quizzes, and projects and online discussions. Topics include developing a personalized workout program, nutrition, exercise principles, and general health.

HPER 190 Basic Fitness III [PE] 2 Credits
This fitness course includes three components: workout program, research paper and quizzes, and projects and online discussions. Topics include developing a personalized workout program, nutrition, exercise principles, and general health. Prerequisite: HPER 188 and 189.

HPER 191 Core Workout [PE] 1 Credit
A beginning dance fitness course. Emphasis will be placed on the center Core of the body, since this is where most athletic skills generate.

HPER 264 Stress Management 3 Credits
Stress is a normal part of life. Some of the most common triggers associated with stress will be discussed. Students will learn techniques to manage these stressors in a healthful way. Both physical and mental coping skills will be explored.

HPER 267 Outdoor Recreation 5 Credits
History, development, principles and trends of organized camping, nature and conservation, and outdoor recreation. Includes several field trips throughout the quarter.

HPER 268 Diversity in Sports [D] 5 Credits
Examine diversity issues in the sporting world from the 1930’s to present day. Topics will include athletes that have overcome social biases such as race, gender, religion and disability in the context of the Olympics, Special Olympics, Paralympics, NCAA and Professional sports. This course counts an elective and diversity credit toward the AA degree, not as an activity course.

HPER 273 Fitness for Life 3 Credits
Students will learn how to develop lifelong training and conditioning programs for themselves. They will learn how the body responds to various training methods and how to apply this to the cardiovascular and muscular systems. This course counts as an ELECTIVE toward an AA degree, NOT as an ACTIVITY COURSE.

HPER 274 Personal and Community Health and Hygiene 5 Credits
Designed to present current information to students and enable them to make intelligent decisions concerning their physical, mental, and social well-being. The importance of positive personality and self-image is also stressed as a basis for sound health decisions. This course counts as an ELECTIVE toward an AA degree, NOT as an ACTIVITY COURSE.

HPER 275 Prevention and Care of Athletic Injury 4 Credits
Investigates the proper methods of training and preparation for athletic and recreational activities. Skills in wrapping and taping, as well as treatment of minor injuries, will be developed. Instruction includes both lecture and lab as well as practical experience in the athletic training area. This course counts as an ELECTIVE toward an AA degree, NOT as an ACTIVITY COURSE.

HPER 276 Athletic Training Lab 1 Credit
Students spend two hours each week getting hands-on experience working in the WWCC Athletic Training Room. Students will be under the direct supervision of the Head Athletic Trainer. Prerequisite: Co-enrollment or successful completion of HPER 275. This course counts as an ELECTIVE toward an AA degree, NOT as an ACTIVITY COURSE.

HPER 281 Environmental and Conservation 3 Credits
Designed to present current information to students and enable them to make intelligent decisions concerning their physical, mental, and social well-being. The importance of positive personality and self-image is also stressed as a basis for sound health decisions. This course counts as an ELECTIVE toward an AA degree, NOT as an ACTIVITY COURSE.

HPER 282 Environmental Science 3 Credits
Survey course in physical sciences for the non-science or undecided major. Emphasis on conceptual understanding rather than computation. Topics include motion, forces, the concept of work and energy, physical states of matter, principles of thermodynamics, basic electricity and magnetism, and atomic and nuclear structure. Lab work required. Prerequisites: MATH 074C; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher. Formerly PHYS 110, Conceptual Physics.

PHYS 110 Physics Non-Science Majors with Lab [NS] 5 Credits
Survey course in physics for the non-science or undecided major. Emphasis on conceptual understanding rather than computation. Topics include motion, forces, the concept of work and energy, physical states of matter, principles of thermodynamics, basic electricity and magnetism, and atomic and nuclear structure. Lab work required. Prerequisites: MATH 074C; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher. Formerly PHYS 110, Conceptual Physics.
PHYS& 114 General Physics I with Lab [NS]  5 Credits
This is part one of an algebra-based physics sequence intended for non-physical science majors. Topics include linear and rotational motion, forces, kinetic and potential energy, momentum, and translational and rotational equilibrium. Lab work required. Prerequisites: MATH 078E; appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher; basic knowledge of trigonometry. Formerly PHYS 121, College Physics I.

PHYS& 115 General Physics II with Lab [NS]  5 Credits
This is part two of an algebra-based physics sequence intended for non-physical science majors. Topics include mechanical properties of matter, behavior of fluids, harmonic motion and waves, basic thermodynamics, and an introduction to electricity. Lab work required. Prerequisite: PHYS& 114. Formerly PHYS 122, College Physics II.

PHYS& 116 General Physics III with Lab [NS]  5 Credits
This is part three of an algebra-based physics sequence intended for non-physical science majors. Topics include electricity and magnetism, optics, and selected topics in modern physics (relativity, structure of the atom, quantum theory, etc.). Lab work required. Prerequisite: PHYS& 115. Formerly PHYS 123, College Physics III.

PHYS 199 Special Topics  1 - 5 Credits
Opportunity for students to pursue special interests and topics in physics. Requires working with physics faculty to develop a project and to determine the research and presentational methods as well as outcomes to be achieved and assessed.

PHYS& 221 Engineering Physics I with Lab [NS]  5 Credits
This is part one of a calculus-based physics sequence intended for physical science and engineering majors. Topics include linear and rotational motion, forces, kinetic and potential energy, momentum, and translational and rotational equilibrium. Lab work required. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 087; or permission of the Science Division Chair or designee. Recommended: READ 088 or higher. Co-requisite: MATH& 151. Formerly PHYS 201, Physics for Science and Engineering I.

PHYS& 222 Engineering Physics II with Lab [NS]  5 Credits
This is part two of a calculus-based physics sequence intended for physical science and engineering majors. Topics include mechanical properties of matter, behavior of fluids, harmonic motion and waves, basic thermodynamics, and an introduction to electricity. Lab work required. Prerequisite: PHYS& 221. Co-requisite: MATH& 152. Formally PHYS 202, Physics for Science and Engineering II.

PHYS& 223 Engineering Physics III with Lab [NS]  5 Credits
This is part three of a calculus-based physics sequence intended for physical science and engineering majors. Topics include electricity and magnetism, with selected topics from optics and modern physics as time allows. Lab work required. Prerequisite: PHYS& 222. Co-requisite: MATH& 153. Formerly PHYS 203, Physics for Science and Engineering III.

For the most current information see: www.wwcc.edu
An examination of Presidential actions and behaviors that look beyond traditional histories. Students will examine public perceptions and reactions to the actions of those in the office of the President. Formerly PSCI 215.

Goals, methods, and results of government programs and policies in agriculture. Topics include areas of international trade, domestic farm policy, food safety and quality, resource issues and the effect on agri-business. Recommended: One quarter economics and READ 088 or higher. Student may not earn credit for both POLS 222 and AGRI 222. Formerly PSCI 222.

Introduction to the golf industry, offering an overview of industry practices, trends and traditions. It also serves as an introduction to fundamental golf shop policies and procedures. Topics include taking tee times and booking lessons, enforcing golf course rules, and controlling pace of play.

Intermediate golf shop operations and tournament administration will be discussed. Topics include: tournament and league promotion, handicapping and member services, resolving problems with play and developing contingency plans. Golf course design principles are explored and golf course rating formulas introduced.

The fundamentals of golf instruction will be discussed. Topics include the beginning golfer and developing the golf swing. Key instructional terminology is defined, ball flight laws examined and golf swing principles introduced. Basic lesson tee procedures are also covered.

The fundamentals of the golf swing and short game techniques of chipping, pitching, putting and bunker play will be covered. Needs of intermediate golfers are addressed. Working with junior golfers and other golfing populations is introduced. Topics include drills and practice routines.

Provides an extensive examination of the Rules of Golf. Topics include use of the Rules book, etiquette and safety, definitions, conforming equipment and player responsibilities. Exact interpretations of Rules questions are detailed in the Decisions book. A brief history of the Rules and changes since prior revision period are also discussed.

A study of golf car fleet management is covered. Topics include planning, selection and acquisition of golf cars, fleet storage and organization, safety and liability issues, and rental policies. Also includes basic golf car maintenance, record keeping, and appreciation for the fleet as a financial investment.

Opportunity to work at golf facilities while concurrently enrolled in related golf management courses. Satisfactory completion of a comprehensive workbook is required. Wages for students are commensurate with entry-level employees in the industry. Successful progress in the Professional Golf Management program is expected. Prerequisite: Instructor permission. Co-requisite: PGM 192

Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: PGM 191.

Study and train to meet established local needs in the professional golf management industry, supplemental to courses currently offered. Prerequisite: Instructor permission.

Golf shop practices are further examined and golf facility operations expanded. Merchandising techniques, practice ranges, special events and developing tournaments are included. Professional shop services and amenities are addressed. Customer service principles and work ethics are emphasized.

Advanced instruction in general management, food and beverage concerns, budgeting for private, public and daily fee golf courses. Employment networking techniques are applied. Annual, seasonal, monthly, and weekly calendars and scheduling introduced. Leadership roles and teambuilding exercises are engaged.

Intermediate golfers with swing habits that are counterproductive to effective ball striking are covered. Corrective measures are explored; drills, training aids and practice plans prescribed. The lesson book and promoting lesson programs, as well as characteristics of successful teachers are studied.

Focuses entirely on advanced players of the game. Elements of success used by peak performers and routines employed by leading golf coaches and instructors are examined in depth. Mental toughness, emotional resilience, course management and short game expertise are highlighted. Fitness, strength, flexibility, and nutrition will be addressed. Focal points are the rigors of tournament golf.

Advanced rules cover golf course set up, defining and marking a golf course, duties of rules officials and referees, serving on tournament committees and administering an officiating staff. Prerequisite: PGM 121.
### Psychology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC 100</td>
<td>General Psychology [SS]</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 111</td>
<td>Psychology of Relationships [SS]</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 113</td>
<td>Human Sexuality [D, SS]</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 139</td>
<td>Psychology of Women [SS]</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 140</td>
<td>Career and Life Planning</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 146</td>
<td>Psychology of Human Performance</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 150</td>
<td>Social Psychology [D, SS]</td>
<td>5</td>
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<tr>
<td>PSYC 160</td>
<td>Psychology of Criminal Behavior [SS]</td>
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</table>

**PSYC 100 General Psychology [SS]** 5 Credits

Introduction to the factors which influence human behavior and thinking, as well as the complexities of mind and body relationship. The outcome of this course should be a clearer understanding of individual behavior. Critical thinking skills and practical applications are emphasized. Recommended: READ 088 or higher. Formerly PSY 101, Introduction to Psychology.

**PSYC 111 Psychology of Relationships [SS]** 3 Credits

Personal discovery of the factors that influence interactions including friendships, romantic relationships, work interactions, and family interactions. Skills in personal communication, active listening, feedback, self-disclosure, empathy, assertiveness, and conflict management are developed. Formerly PSY 111.

**PSYC 113 Human Sexuality [D, SS]** 5 Credits

Study of sexual facts, attitudes, morals, and behavior. Includes conception, contraception, sexually transmitted diseases, abortion, physiological and psychological aspects of sexual response, varieties of sexual behavior, exploration of sexual abuse and victimization, legal issues in sexuality, sexual ethics, and society's influence on sexuality and sex roles. Course for adults—lectures and films may contain explicit language, sciences, nudity, and material. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 097. Recommended: READ 088 or higher. Student may not earn credit for both PSYC 113 and WST 113. Course taken prior to fall 2010 also accepted for diversity requirement. Formerly PSY 113.

**PSYC 139 Psychology of Women [SS]** 5 Credits

Explore the historical, cultural, and biological development of growing up female. Also examined are the social and psychological perspectives of female identity, traditional and non-traditional roles, values, sexuality, dependency, emotions, physical and mental health issues, and the changing perception of femininity and masculinity. Student may not earn credit for both PSYC 139 and WST 139. Recommended: READ 088 or higher. Formerly PSY 139.

**PSYC 140 Career and Life Planning** 3 Credits

A systematic approach to planning students' individual career paths. Students learn to recognize their skills, interests, and values related to work and education. Career fields and occupations are identified that relate appropriately to those personal characteristics and students learn to research the demands, rewards and employment practices unique to each. Resumes and portfolios are produced as part of preparing to conduct an effective job search. Recommended: ENGL 077. Formerly PSY 140.

**PSYC 146 Psychology of Human Performance** 3 Credits

In-depth study of the relationship between the mind and body. Course includes application of psychological theories, research, and intervention strategies to performance enhancements in a variety of settings. Topics include stress and emotional control, attention and concentration, mental rehearsal, memory enhancement, the effects of motivation and personality on performance and effective group communications. Recommended: READ 088 or higher. Formerly PSY 196.

**PSYC 150 Social Psychology [D, SS]** 5 Credits

Study of the influence of the behavior of others on individual behavior and attitudes. Topics include conformity, obedience, aggression, prejudice, persuasion, interpersonal attraction, self-justification, and group processes. Recommended: READ 088 or higher. Course taken prior to fall 2010 also accepted for diversity requirement. Formerly PSY 205. [SS] [I&D]

**PSYC 207 Psychology of Personality [SS]** 5 Credits

Introduction to the study of personality, including an overview of the major theories, research strategies for measuring aspects of personality, and practical applications to psychological adjustment in daily life. Prerequisite: PSYC& 100, General Psychology. Recommended: READ 088 or higher.
PSYC 219 Health Psychology [SS]  5 Credits
Study of the psychological research and principles in the promotion and maintenance of wellness and health in understanding and preventing disease. Prerequisite: PSYC& 100, General Psychology. Recommended: READ 088 or higher. Formerly PSY 219.

PSYC& 220 Abnormal Psychology [SS]  5 Credits
Study of origins and characteristics of maladaptive behavior with emphasis on scientific research on the causes and treatment approaches to psychopathology. Topics include anxiety disorders, schizophrenia, substance abuse disorders, dissociative disorders, and problems of cognitive function and childhood disorders. Prerequisite: PSYC& 100. Recommended: READ 088 or higher. Formerly PSY 250, Abnormal Psychology.

PSYC 224 Environmental Psychology [SS]  5 Credits
Study of interrelationships between people and the environment. Course will address the theories of environment-behavior relationships and include topics of environmental perception, assessment and cognition; noise, weather, climate, pollution, disasters, personal space and territoriality; planning and design in the work, learning and leisure environments; and changing behavior to save the environment. The course structure will allow the student to apply the theories and concepts of environmental psychology to their particular setting of interest, i.e. work, school, home. Recommended: READ 088 or higher. Formerly PSY 224.

PSYC 240 Honors Seminar: Explorations in Psychology  2 Credits
Provide students with a chance to examine a specific area of Psychology in depth. The basic concepts of the particular area of study will be covered, in addition to discussion of related current events and specific issues of local, national or global interest. Includes lecture as well as student interaction, and will require critical thinking and consideration of relevant diversity issues. Prerequisite: Students must be enrolled in WWCC Honors Program, or instructor permission.

PSYC 297 Special Problems  1 - 5 Credits
Provides an opportunity to design and implement a research project of interest in psychology under the supervision of an instructor. Prerequisite: Instructor permission. Formerly PSY 297.

Reading

READ 078 Basic Reading Skills  5 Credits
Encourages and supports improvement of basic reading, comprehension, and study skills. Develops an understanding of the reading process and appreciation for the importance of reading both for pleasure and personal growth. Prerequisite: Entrance by placement exam.

READ 088 Reading Improvement  5 Credits
Designed to improve how ably students utilize reading strategies to improve their overall comprehension. It reinforces skills in recognizing and using information selectively, increasing critical thinking about reading material, and increasing overall reading speed to better meet college reading demands. Prerequisite: Appropriate placement score or by successful completion of READ 078.

Science

SCI 095 Gateways to Science  5 Credits
Introduction to biology and chemistry with an emphasis on thinking skills and learning strategies to prepare students to succeed in college-level science courses. Lab work required. Prerequisite: Appropriate placement score, grade of C- or higher in MATH 072B; READ 088; or permission of the Science Department.

Sociology

SOC& 101 Introduction to Sociology [D, SS]  5 Credits
Introduces the basic principles of social relationships, collective behavior, and human interaction. These principles are applied to the study of culture; race, gender, and class inequality; deviance; law; social institutions; and social change. Formerly SOC 101, Intro to Sociology. [SS] [^D]

SOC& 101H Introduction to Sociology [D, SS]  5 Credits
Introduces the basic principles of social relationships, collective behavior, and human interaction. These principles are applied to the study of culture; race, gender, and class inequality; deviance; law; social institutions; and social change. Open only to honors students or students with a 3.5 gpa or greater. Prerequisite: Instructor Permission. Formerly SOC 101, Intro to Sociology. [SS] [^D]

SOC 107 Human Services Field Experience I  1 - 3 Credits
Provides a supervised experience in a social agency, school, health care facility, youth group, etc. in the local community. This course is part of WWCC's Human Services program. Requires 30 hours per credit. Prerequisite: Instructor permission.

SOC 108 Human Services Field Experience II  1 - 3 Credits
Provides a supervised experience in a social agency, school, health care facility, youth group, etc. in the local community. This course is part of WWCC's Human Services program. Requires 30 hours per credit. Prerequisite: Instructor permission.

SOC 109 Human Services Field Experience III  1 - 3 Credits
Provides a supervised experience in a social agency, school, health care facility, youth group, etc. in the local community. This course is part of WWCC's Human Services program. Requires 30 hours per credit. Prerequisite: Instructor permission.

SOC 110 Human Services Field Experience IV  1 - 3 Credits
Provides a supervised experience in a social agency, school, health care facility, youth group, etc. in the local community. This course is part of WWCC's Human Services program. Requires 30 hours per credit. Prerequisite: Instructor permission.

SOC 150 Introduction to Social Work [SS]  5 Credits
Introduction to the field of social work including an examination of the knowledge, values, and skills influencing the role of the social worker in a variety of practice settings.

SOC 164 Investigating the Dynamics of Socioeconomic Classes  2 Credits
Explores the relationships that exist between socio-economic classes and helps create awareness on the values, priorities, and resources pertaining to those classes. Recommended: READ 088

For the most current information see: www.wwcc.edu

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOC&amp; 201</td>
<td>Social Problems [SS]</td>
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<tr>
<td></td>
<td>Examines a variety of global social problems (conditions or phenomena that</td>
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<td>adversely affect significant segments of the population) using sociological</td>
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<td>approaches to understand their complex dynamics. Interprets the effects of</td>
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<td>rapid globalization, with particular emphasis on impact on the United States.</td>
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<td>From a global perspective, this course examines war, over population,</td>
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<td>environmental degradation, poverty and wealth, unequal health care, race and</td>
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<td>gender inequality, and crime. In addition to examining problems, students</td>
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<td>explore possible solutions. Formerly SOC 201, Intro to Social Problems.</td>
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<tr>
<td>SOC 204</td>
<td>Drugs and Society [SS]</td>
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<tr>
<td></td>
<td>Introduction to the many and varied drugs, and their related sociocultural</td>
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<td></td>
<td>history of use and abuse. The physiological and psychological study of</td>
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<td></td>
<td>symptoms and disease concepts. A review of chemical dependency and the nature</td>
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<td>of social control as expressed through treatment, rehabilitation, education,</td>
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<td>family structure, community, and other social responses.</td>
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<td>Recommended: READ 088 or higher.</td>
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<td>SOC 205</td>
<td>Racial and Ethnic Relations [D, SS]</td>
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<td></td>
<td>Focuses on intergroup race and ethnic relations with a social-historical</td>
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<td>emphasis. Students explore how race and ethnic identities are developed;</td>
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<td>theoretical perspectives on assimilation and pluralism; prejudice and</td>
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<td>discrimination; the creation of subordinate groups; and historical and</td>
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<td>contemporary issues. Problems and possible solutions of majority-minority</td>
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<td></td>
<td>relations are examined. Course taken prior to fall 2010 also accepted for</td>
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<td>diversity requirement.</td>
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<tr>
<td>SOC 206</td>
<td>Social Gerontology and the Aging Revolution [D, SS]</td>
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<tr>
<td></td>
<td>Looks at the effects of the aging population of society, life/health</td>
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<td>insurance, retirement planning, and resources for the elderly, discussing</td>
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<td>the individual and group behaviors with respect to health and illness.</td>
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<td>Examination of medical professionals and their behaviors, with a look at the</td>
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<td>human behavioral responses to health, illness and the aging process. The</td>
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<td>distinction between culture and the process of death, dying and bereavement</td>
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<td>will be analyzed as it relates to the physical, mental and social changes in</td>
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<td>people as they age. Emphasis on the aging process itself. Course taken</td>
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<td>prior to fall 2010 also accepted for diversity requirement. [SS] [^D]</td>
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<td>SOC 208</td>
<td>Sociology of Intimate and Family Relations [D, SS]</td>
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<tr>
<td></td>
<td>Provides a sociological understanding of the processes involved in family</td>
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<td>relations, household life and structures, and family problems. Emphasizes</td>
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<td>historical formations, social influences, and the diversity of families in</td>
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<td>the United States. Explores myths about family forms and features; the role</td>
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<td>of gender; divisions of labor within household; historical shifts; family</td>
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<td>privacy and government interventions; stereotypes; and the effect of social,</td>
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<td>economic, and political forces on the family. Also addresses the broader</td>
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<td>issues in the sociology of intimate relations beyond conventional marriages</td>
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<td>and families. Course taken prior to fall 2010 also accepted for diversity</td>
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<td>requirement. [SS][^D]</td>
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<tr>
<td>SOC 210</td>
<td>Contemporary Social Issues [SS]</td>
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<tr>
<td></td>
<td>Course for curious students who like to delve deeply into hot-topic current</td>
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<td>issues. The quarterly theme is determined in advance based on the results of</td>
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<td>recent student polling. Using valid sources and digital resources students</td>
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<td></td>
<td>explore sociological approaches to understanding diverse perspectives</td>
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<td></td>
<td>regarding key current issues. Examples of prospective hot topics include</td>
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<td>immigration policies, sustainability, corporate crime, prison industry,</td>
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<td>healthcare reform, war, social impact of climate change, globalization,</td>
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<td>social consequences of demographic changes (e.g., aging population), social</td>
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<td>movements, or other emerging and current social issues. Typically only one</td>
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<td></td>
<td>current issue, or perhaps two related ones, is closely examined each quarter.</td>
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<td>Contact the instructor for specific quarterly theme.</td>
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<tr>
<td>SOC 220</td>
<td>Gender and Society [D, SS]</td>
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<tr>
<td></td>
<td>Gender is a central feature of social life. Enhances students' recognition</td>
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<td>of the pervasiveness and complexities of a sex and gender “system,”</td>
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<td>predominately focusing on our own society. Gender is explored on three levels</td>
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<td></td>
<td>(individual identity, gender roles, and institutional level) to include as</td>
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<td></td>
<td>a system of social relationships in which gender interacts with, and</td>
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<td>influences, institutional structures; as what people “do” in social</td>
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<td>interactions; and as an attribute by individuals for self-identification.</td>
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<td>Student may not earn credit for both SOC 220 and WST 220. Course taken</td>
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<td>taken prior to fall 2010 also accepted for diversity requirement.</td>
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<td>Recommended: READ 088 or higher.</td>
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<tr>
<td>SOC 226</td>
<td>Community Leadership</td>
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<tr>
<td></td>
<td>The Sherwood Trust Community Leadership Program was established by the Ford</td>
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<tr>
<td></td>
<td>Institute for Community in 2000, and is funded by the Ford Family Foundation.</td>
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<tr>
<td></td>
<td>This structured 60-hour curriculum is offered to citizens in small towns,</td>
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<td>such as Walla Walla. The objective is to cultivate community leadership</td>
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<td>skills with individuals from diverse backgrounds, from different economic</td>
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<td>and social sectors, and of diverse ages. An outcome of this program is for</td>
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<td>the class to identify a specific community project to be completed by the</td>
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<td>following winter quarter. This course is available to current participants</td>
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<td></td>
<td>in the Sherwood Trust Community Leadership Program only.</td>
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<tr>
<td>SOC 227</td>
<td>Community Leadership Service Project</td>
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<td></td>
<td>The Sherwood Trust Community Leadership Program was established by the Ford</td>
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<tr>
<td></td>
<td>Institute for Community in 2000, and is funded by the Ford Family Foundation.</td>
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<td></td>
<td>This 30-hours of community service learning component is the outgrowth of</td>
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<td>SOC 226. The objective is to cultivate community leadership skills with</td>
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<td>individuals from diverse backgrounds, from different economic and social</td>
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<td>sectors, and of diverse ages. An outcome of this program is for the class to</td>
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<td>identify a specific community project to be completed by the following</td>
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<td>winter quarter. This course is available to current participants in the</td>
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<td>Sherwood Trust Community Leadership Program only.</td>
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<tr>
<td>SOC 230</td>
<td>Medical Sociology [SS]</td>
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<td></td>
<td>Medical Sociology will look at the relationship and interaction between the</td>
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<td>biological and social factors of health and illness. Topics covered include</td>
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<td>correlations within the health care systems, individual well-being, real-</td>
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<td>perceived illnesses, and the notion of our medicalized body. Social stress,</td>
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<td>health behaviors, the environment, and the distribution of illnesses in the</td>
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<td>United States have impacted our health and health care system are examined.</td>
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<td>Recommended: READ 088 or higher.</td>
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</tbody>
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For the most current information see: www.wwcc.edu 236
<table>
<thead>
<tr>
<th>Spanish</th>
<th>Turf Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPAN&amp; 121 Spanish I [H]</strong> 5 Credits</td>
<td><strong>TURF 101 Turf Equipment Operations I</strong> 3 Credits</td>
</tr>
<tr>
<td>Introductory course for students wishing to learn Spanish as a second language. Provides a foundation for practical interpersonal communications. Topics include pronunciation, basic grammar, reading, writing, and an introduction to Hispanic culture. Formerly SPAN 101, Spanish I.</td>
<td>The use, operation, and maintenance of turf equipment, including mower units, top dressers, soil aerators, trimmers, and miscellaneous turf equipment are covered. Also provides a practical understanding of costing of equipment. Safety is emphasized.</td>
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<tr>
<td><strong>SPAN&amp; 122 Spanish II [H]</strong> 5 Credits</td>
<td><strong>TURF 122 Turf Maintenance Practices</strong> 3 Credits</td>
</tr>
<tr>
<td>Introductory course for students wishing to learn Spanish as a second language. Provides a foundation for practical interpersonal communications. Topics include pronunciation, basic grammar, reading, writing, and an introduction to Hispanic culture. Prerequisite: SPAN&amp; 121 or instructor permission. Formerly SPAN 102, Spanish II.</td>
<td>Introduction to the methods used in maintenance of sports fields, parks, school grounds, and golf courses. Prepares students for cooperative work experience and for entry into the turf industry.</td>
</tr>
<tr>
<td><strong>SPAN&amp; 123 Spanish III [H]</strong> 5 Credits</td>
<td><strong>TURF 191 Cooperative Work Experience</strong> 1 - 25 Credits</td>
</tr>
<tr>
<td>Introductory course for students wishing to learn Spanish as a second language. Provides a foundation for practical interpersonal communications. Topics include pronunciation, basic grammar, reading, writing, and an introduction to Hispanic culture. To be taken in sequence or with written consent of the instructor. Prerequisite: SPAN&amp; 122 or instructor permission. Formerly SPAN 103, Spanish III.</td>
<td>Opportunity to work in jobs directly related to the turf management industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td><strong>SPAN&amp; 221 Spanish IV [H]</strong> 5 Credits</td>
<td><strong>TURF 192 Cooperative Seminar</strong> 2 Credits</td>
</tr>
<tr>
<td>Intermediate course provides practice in speaking, listening, reading, and writing. Students study grammar, vocabulary, and the use of idiomatic expressions. Prerequisite: SPAN&amp; 123 or instructor permission. Formerly SPAN 201, Spanish IV.</td>
<td>Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: TURF 191.</td>
</tr>
<tr>
<td><strong>SPAN&amp; 222 Spanish V [H]</strong> 5 Credits</td>
<td><strong>TURF 199 Special Topics</strong> 1 - 10 Credits</td>
</tr>
<tr>
<td>Intermediate course provides practice in speaking, listening, reading, and writing. Students study grammar, vocabulary, and the use of idiomatic expressions. Prerequisite: SPAN&amp; 221 or instructor permission. Formerly SPAN 202, Spanish V.</td>
<td>Study and train to meet established local needs in the turf management industry, supplemental to courses currently offered. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td><strong>SPAN&amp; 223 Spanish VI [H]</strong> 5 Credits</td>
<td><strong>TURF 201 Turfgrass Cultural Practices</strong> 6 Credits</td>
</tr>
<tr>
<td>Intermediate course provides practice in speaking, listening, reading, and writing. Students study grammar, vocabulary, and the use of idiomatic expressions. Prerequisite: SPAN&amp; 222 or instructor permission. Formerly SPAN 203, Spanish</td>
<td>Introduction to turf grass cultural practices. Topics include turf grass types, turf grass uses, cultivars, selection of grasses, turf fertilization and fertilizer selection, water needs of the grass plant and irrigation, renovation practices, future trends, and turf grass assessment techniques.</td>
</tr>
<tr>
<td><strong>SPAN 297 Field Studies</strong> 1 - 12 Credits</td>
<td><strong>TURF 211 Turf Management</strong> 5 Credits</td>
</tr>
<tr>
<td>Flexible field studies for students wishing to expand their knowledge of Spanish through travel and study abroad. Students must consult with instructor before enrolling.</td>
<td>Focuses on the fundamentals of turf management, operation, and performance in areas of budgeting, supervision, and communication skills. Topics include assessment of field conditions, weather monitoring, and specialty turf management techniques.</td>
</tr>
<tr>
<td><strong>SPAN 298 Independent Studies</strong> 1 - 12 Credits</td>
<td><strong>TURF 215 Turf Diseases and Insects</strong> 3 Credits</td>
</tr>
<tr>
<td>Students expand their knowledge of Spanish through a wide variety of possible directed studies topics. Students must consult with the instructor before enrolling.</td>
<td>Introduction to identification, study of life cycles, and control of insects and diseases common to turf. Concentrates on fundamentals of entomology and plant pathology as well as specific problems and their controls on turf.</td>
</tr>
<tr>
<td><strong>TURF 221 Landscape Maintenance and Construction</strong> 3 Credits</td>
<td>Maintenance and construction of landscapes that include turf, flowers, shrubs, trees, fencing, and hard surfaces.</td>
</tr>
</tbody>
</table>

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TURF MANAGEMENT - WATER TECHNOLOGIES

TURF 231 Pesticide Licensing 3 Credits
Preparation for the State of Washington pesticide licensing exam.

TURF 252 Turf Equipment Maintenance and Repair 3 Credits
Gas and diesel engines, electrical, power trains, and hydraulics to perform simple tune-up and repairs will be covered.

TURF 291 Cooperative Work Experience II 1 - 25 Credits
Opportunity to work in jobs directly related to the turf management industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.

TURF 292 Cooperative Seminar II 2 Credits
Explore issues related to their cooperative work experience focusing on effective workplace relationships and applying leadership skills to promote personal development. Provide professional improvement through techniques such as effective communication, conflict resolution, team building, employee engagement and decision making. Co-requisite: TURF 291.

TURF 297 Special Projects 1 - 18 Credits
Project-oriented experiences in the area or applications not covered in the standard turf management curriculum. Prerequisite: Instructor permission, based on evaluation of student’s education and work experience.

Water Technologies and Management - Water Resources Technology

WTM 110 Residential Irrigation Design, Installation and Troubleshooting 3 Credits
Study of the design, installation and troubleshooting of residential irrigation systems. Site evaluation, irrigation system components, valve and sprinkler selection, system piping, system design, controllers, and installation procedures will be covered. Troubleshooting malfunctioning system components will also be incorporated into the course. Formerly WMGT 110.

WTM 110A System Components 1 Credit
A study of the components which are used in a lawn and turf irrigation system. This short course will focus on all the equipment needed to complete an installation of a lawn and landscape irrigation system, including drip components and xeriscaping. Calculating precipitation rates will be included in this course. Pipe selection due to friction loss will be introduced.

WTM 110B Site and System Analysis 1 Credit
Analyzes site conditions and how those conditions are considered in the design phase of a lawn and turf irrigation system. Considerations such as soil, water, crop relationships, elevation, friction loss and pipe sizing will be covered. Simple irrigation system layouts will be constructed and site analysis will be performed on those layouts. Formerly WMGT 110B.

WTM 110C Design and Installation 1 Credit
Includes a lawn and turf irrigation design of an actual site. All aspects of the design will be included, such as piping, valving, head layout and controller and wire location. Also included will be creating a material list and pricing strategies. Installation methods will be studied and analyzed. Formerly WMGT 110C.

WTM 112 Irrigation Principles 5 Credits
Overview of the elements of irrigation and its industry. Topics include irrigation methods, efficiencies, equipment, and their relationships to soils and plants. Formerly WGMT 112.

WTM 112A Irrigation System Components 1 Credit
An overview of pressurized irrigation systems and their components. Examples of their applications in the field. Formerly WMGT 112A.

WTM 112B Irrigation Performance and Installation 1 Credit
Analysis of irrigation system water application. Measurement of system efficiencies. Installation and maintenance of components. Formerly WMGT 112B.

WTM 112C Hydraulics and Soil 1 Credit
Introduction of pump and piping systems. Basic water hydravics related to irrigation systems. Analysis of plant-water-soil relationships. Formerly WMGT 112C.

WTM 112D Plant Water Use 1 Credit
Evaluation of how plants use water and how to provide for their needs through irrigation. Formerly WGMT 112D

WTM 112E Special Irrigation Applications 1 Credit
Environmental uses of irrigation. Economic considerations in choosing and installing a system. Energy demands and alternatives to operate a system. Formerly WGTM 112E.

WTM 135 Cultures of Water 5 Credits
Explore the history of the Pacific Northwest relationship between people and water. Topics include different cultural views of water, from tribal, agricultural, municipal, recreational and transportation entities. State and Federal environmental policies affecting water will be analyzed. The evolution of Native American culture and the effects of water on the culture will also be examined. Formerly WMGT 135.

WTM 139 Watershed Management 3 Credits
Explores Earth systems and natural processes that shape the Earth. Watershed delineations, water and nutrient cycles, and the influences of land management techniques and policies on water quality, quantity, and timing are covered. Course includes climatic conditions and the effects climate changes have on water quantity and quality. Course also explores the impact of various management practices on terrestrial system stability. This is an introductory natural science course. Formerly WMGT 139.

WTM 141 Center Pivot Troubleshooting 5 Credits
Train individuals to troubleshoot Center Pivot irrigation system problems. Troubleshooting will include mechanical, electrical, and hydraulic systems. Formerly WGMT 141.

WTM 190 Water Quality and Environmental Chemistry 5 Credits
Introductory chemistry course for non-science majors. Covers common water quality sampling, testing, and reporting procedures and the science behind them. Explores the importance of accuracy, precision, and chain of custody when completing lab analyses. Recommend: WTM 139, WTM 239, and/or BIOL 130. Formerly NR 190.

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<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>WTM 191</td>
<td>Cooperative Work Experience</td>
<td>1 - 25</td>
</tr>
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<td>WTM 192</td>
<td>Cooperative Seminar</td>
<td>2</td>
</tr>
<tr>
<td>WTM 199</td>
<td>Special Topics</td>
<td>1 - 10</td>
</tr>
<tr>
<td>WTM 200</td>
<td>Field Botany</td>
<td>5</td>
</tr>
<tr>
<td>WTM 204</td>
<td>Water Policy</td>
<td>3</td>
</tr>
<tr>
<td>WTM 220</td>
<td>Drip Irrigation</td>
<td>3</td>
</tr>
<tr>
<td>WTM 221</td>
<td>Pump Applications</td>
<td>3</td>
</tr>
<tr>
<td>WTM 225</td>
<td>Advanced Irrigation Design</td>
<td>4</td>
</tr>
<tr>
<td>WTM 229</td>
<td>Methods in Fish Biology</td>
<td>5</td>
</tr>
<tr>
<td>WTM 230</td>
<td>Water and Energy Conservation</td>
<td>3</td>
</tr>
<tr>
<td>WTM 239</td>
<td>Watershed Processes and Restoration</td>
<td>5</td>
</tr>
<tr>
<td>WTM 241</td>
<td>Advanced Irrigation Controls and Applications</td>
<td>5</td>
</tr>
<tr>
<td>WTM 291</td>
<td>Cooperative Work Experience II</td>
<td>1 - 25</td>
</tr>
</tbody>
</table>

- **WTM 191 Cooperative Work Experience**: Opportunity to work in jobs directly related to the water management industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission. Formerly WGMT 191.

- **WTM 192 Cooperative Seminar**: Students explore issues related to their cooperative work experience focusing on effective workplace relationships and how self-knowledge, perception, attitudes, and behavior affect these relationships and job satisfaction. Students will also learn effective learning skills for workplace and educational success. Co-requisite: WTM 191. Formerly WMGT 192.

- **WTM 199 Special Topics**: Study and train to meet established local needs in the water management industry, supplemental to courses currently offered. Prerequisite: Instructor permission. Formerly WGMT 199.

- **WTM 200 Field Botany**: Focus on the plant identification and restoration process. This information will be used in watershed assessment and restoration activities. Laboratory and field work provide opportunities to use dichotomous keys and learn the local flora. Students will be required to create a journal that depicts the distribution, identification, life history, and cultural significance of plants in eastern Washington/Oregon to be used as a resource for watershed restoration. Students will also work on oral communication and speech skills through a series of plant-based presentations and a group restoration plan presentation. Students will also work on oral communication and speech skills through a series of plant-based presentations and a group restoration plan presentation. Formerly NR 200.

- **WTM 204 Water Policy**: The study of water policy and law as it relates to state and federal issues. Topics include Water Rights, Western Water Law, and state and federal policy. The effect of ESA listings with regards to water policy will also be analyzed. Formerly WGMT 204.

- **WTM 220 Drip Irrigation**: Introduction to drip irrigation concepts, methods, and components. Basic drip system maintenance, troubleshooting, and design are performed. Formerly WMGT 220.

- **WTM 221 Pump Applications**: Pump classes and types, selection, and application will be analyzed. Topics include pump curves, system curves, suction characteristics, piping systems, and pump panel electrical wiring. Formerly WMGT 221.

- **WTM 225 Advanced Irrigation Design**: Develop and draw complete irrigation designs for both agricultural and turf application. Designs will incorporate all crop, soil, hydraulic, electrical, and mechanical considerations. Comprehensive hydraulic analysis will be completed on all designs to determine total dynamic head, gallons per minute and pump horsepower required. Irrigation precipitation rates will be calculated and will be used along with soil water holding capacities, crop consumptive uses and, soil infiltration rates, to establish irrigation scheduling. Prerequisite: WTM 110 or instructor permission. Formerly WMGT 225.

- **WTM 225A Hydraulics and Water Design**: Development of total hydraulic, electrical, and mechanical irrigation design of agriculture and turf systems are analyzed. Pumps, piping, valves, and sprinkler types are selected and made into complete designs. Formerly WMGT 225A.

- **WTM 225B Basic Irrigation Design**: Development of total hydraulic, electrical, and mechanical irrigation design of agriculture and turf systems are analyzed. Pumps, piping, valves, and sprinkler types are selected and made into complete designs. Formerly WMGT 225B.

- **WTM 225C Specialized Design**: Development of total hydraulic, electrical, and mechanical irrigation design of agriculture and turf systems are analyzed. Pumps, piping, valves, and sprinkler types are selected and made into complete designs. Formerly WMGT 225C.

- **WTM 229 Methods in Fish Biology**: Explores the basic physiological, anatomical, and behavioral characteristics of a variety of fish species. Examines ecological linkages between habitat quality, water quality, human impacts, and species diversity on population size and long term viability. Includes hands on lab experience with fish taxonomy, anatomy, and research methods. Collegiate reading skills, technical vocabulary, and technical writing in standard scientific formats are be studied and practiced. Recommend: WTM 139, WTM 239, and/or BIOL 130. Formerly NR 220.

- **WTM 230 Water and Energy Conservation**: Explores soil and water conservation strategies commonly used in the industry. Analysis of techniques and calculations used to reduce water application and energy consumption. Power rate calculations, water application methods, and low-pressure system modifications are targeted. Formerly WMGT 230.

- **WTM 239 Watershed Processes and Restoration**: Explores the physical and biological components of streams and watersheds. Topics discussed focus on watershed characteristics and the potential impacts of such on stream characterization and the living components associated with habitats. Recommend WTM 139. Formerly NR 239.

- **WTM 241 Advanced Irrigation Controls and Applications**: Use previously learned irrigation principles and then apply those concepts into a precision application. Mapping and precision agriculture software will be used to map and determine control points for precision water applications. Integration of real time data derived from on-site data loggers or weather stations will be used to determine variable rate applications. Prerequisite: ENT 151 or ENT 152.

- **WTM 291 Cooperative Work Experience II**: Offers students an opportunity to work in jobs directly related to the water management industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission. Formerly WMGT 291.

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## Welding Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 141</td>
<td>Welding Basics</td>
<td>4 Credits</td>
<td>Opportunity to select customized welding process instruction for application training, industry practices, hobby uses, or skill development to meet employer/employment requirements.</td>
</tr>
<tr>
<td>WELD 151</td>
<td>Shielded Metal Arc Welding I</td>
<td>1 - 17 Credits</td>
<td>Entry-level student training in safe practices of fuel gas cutting/welding and shielded metal arc welding. Topics include equipment operation, industry practices, arc welding fundamentals, material preparation methods, basic electricity, metals and electrodes, shop work ethics, and print reading/layout procedures. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>WELD 152</td>
<td>Shielded Metal Arc Welding II</td>
<td>1 - 17 Credits</td>
<td>Training in safe and proper SMAW arc welding procedures and techniques will be covered, including arc welding equipment setup, E-6010 and E-7018 electrode practice, shop work practice, demonstrations, and classroom presentations. Prerequisite: WELD 151 and instructor permission.</td>
</tr>
<tr>
<td>WELD 153</td>
<td>Shielded Metal Arc Welding III</td>
<td>1 - 17 Credits</td>
<td>Additional experience and training in safe SMAW welding procedures and the opportunity to complete AWS/WABO certification tests. Prerequisite: WELD 152 and instructor permission.</td>
</tr>
<tr>
<td>WELD 191</td>
<td>Cooperative Work Experience</td>
<td>1 - 15 Credits</td>
<td>Opportunity to work in jobs directly related to the welding industry. This formal training period is agreed upon by the student, employer, and instructor. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>WELD 156</td>
<td>Gas Metal Arc Welding</td>
<td>1 - 17 Credits</td>
<td>Provides Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW) experience on ferrous and nonferrous alloys. Topics include welding equipment setup and safety procedures, welding practices and procedures for various applications, and equipment maintenance procedures. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>WELD 255</td>
<td>Gas Tungsten Arc Welding</td>
<td>1 - 17 Credits</td>
<td>Explores Gas Tungsten Arc Welding (GTAW) processes on ferrous and nonferrous materials. Topics include safe and proper GTAW equipment setup requirements, process variables, material requirements, and welding procedures. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>WELD 256</td>
<td>Special Projects</td>
<td>1 - 17 Credits</td>
<td>Project-oriented experiences in the area or applications not covered in the standard welding curriculum. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>WELD 270</td>
<td>Shielded Metal Arc - Pipe</td>
<td>1 - 17 Credits</td>
<td>Continuation of WELD 196, designed to provide students variable lab time and credits to meet individual requirements. A contract is developed with instructor to meet the students' needs. Grades and credits are assigned according to contract specifications and student accomplishments. Prerequisite: Instructor permission.</td>
</tr>
<tr>
<td>WELD 296</td>
<td>Welding Skill Development II</td>
<td>1 - 17 Credits</td>
<td>Focus is on industry practices involving pipe welding and welder certification. Topics include welding procedures, specifications, preparation of test samples, testing, and acceptance standards. Prerequisite: WELD 153 or instructor permission.</td>
</tr>
<tr>
<td>WELD 297</td>
<td>Special Projects</td>
<td>1 - 17 Credits</td>
<td>Project-oriented experiences in the area or applications not covered in the standard welding curriculum. Prerequisite: Instructor permission.</td>
</tr>
</tbody>
</table>

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**WELDING - WRiTING**

WELD 299 Leadership  
Encourage students to develop awareness of their leadership potential and abilities through small group discussions and assumption of leadership roles and responsibilities. Students will acquire information, experience diverse points of view, construct knowledge and practice a variety of interpersonal and social skills, such as communicating, goal-setting, decision-making, team-building, and managing stress. Students must complete at least two of the welding skill tests per AWS/WABO standards. Prerequisite: Must be enrolled in last quarter of AAAS Welding degree.

### Women's Studies

WST 113 Human Sexuality [D, SS]  
5 Credits  
Study of sexual facts, attitudes, morals, and behavior. Includes conception, contraception, sexually transmitted diseases, abortion, physiological and psychological aspects of sexual response, varieties of sexual behavior, exploration of sexual abuse and victimization, legal issues in sexuality, sexual ethics, and society's influence on sexuality and sex roles. Course for adults - lectures and films may contain explicit language, sciences, nudity, and material. Prerequisite: Appropriate placement score or grade of C or higher in ENGL 097. Recommended: READ 088 or higher. Student may not earn credit for both WST 113 and PSYC 113. Course taken prior to fall 2010 also accepted for diversity requirement.

WST 124 Women Artists in History [D, H]  
5 Credits  
Focuses on the unique artistic contributions of women artists through history from the middle ages to present. Includes emphasis in issues of social justice, cultural expectations and institutional obstacles. Student may not earn credit for both WST 124 and ART 124. Recommended: READ 088 or higher. [H] [D]^] 

WST 139 Psychology of Women [SS]  
5 Credits  
Explore the historical, cultural, and biological development of growing up female. Also examined are the social and psychological perspectives of female identity, traditional and non-traditional roles, values, sexuality and orientation, dependency, emotions, physical and mental health issues, victimization and the changing perception of femininity and masculinity. Student may not earn credit for both PSYC 139 and WST 139. Recommended: READ 088 or higher. Formerly WST 139.

WST 200 Introduction to Women's Studies [D, SS]  
5 Credits  
Analysis of the construction and enforcement of gender differences and inequalities, studied from a multidisciplinary and multicultural perspective. Emphasis on the intersection of ethnicity, nationality, class, and gender in women's lives, and how these intersecting constructs impact women's past, present, and future contributions. Course taken prior to fall 2010 also accepted for diversity requirement. Recommended: READ 088 or higher.

WST 215 Women in U.S. History [D, SS]  
5 Credits  
Survey of the significant contributions of women to the growth and development of the United States from the early Native American societies to the present. Examine pioneering individuals and organizations, relevant legal, social, moral, political, economic, and religious issues concerning women in American society. Student may not earn credit for both WST 215 and HIST 215. Course taken prior to fall 2010 also accepted for diversity requirement. Recommended: READ 088 or higher. Formerly WST 280.

WST 220 Gender and Society [D, SS]  
5 Credits  
Gender is a central feature of social life. Enhances students' recognition of the pervasiveness and complexities of a sex and gender “system,” predominately focusing on our own society. Gender is explored on three levels (individual identity, gender roles, and institutional level) to include as a system of social relationships in which gender interacts with and influences institutional structures; as what people “do” in social interactions; and as an attribute by individuals for self. Student may not earn credit for both WST 220 and SOC 220. Course taken prior to fall 2010 also accepted for diversity requirement. Recommended: READ 088 or higher.

WST 251 Voices of Women in Literature [D, H]  
5 Credits  
Survey of selected women writers across time and cultures with a focus on women as authors and characters. Considers how gender may affect perspectives on such basic ideas as home, work, community, strength, power, courage, empathy and many others. Time period covered ranges from the 18th to the 21st century. Student may not earn credit for both WST 251 and ENGL 251. Recommended: READ 088 or higher.

### Writing

WRITE 100 Writing in the Workplace  
3 Credits  
Provides writing skills useful in the career market. Assignments include writing professional e-mails, memos, letters, and business reports. Students will acquire basic computer skills, and will learn to proofread and edit their own documents. Prerequisite: Appropriate placement score, grade of C or higher in ENGL 077, or instructor permission. Recommend: OT 024