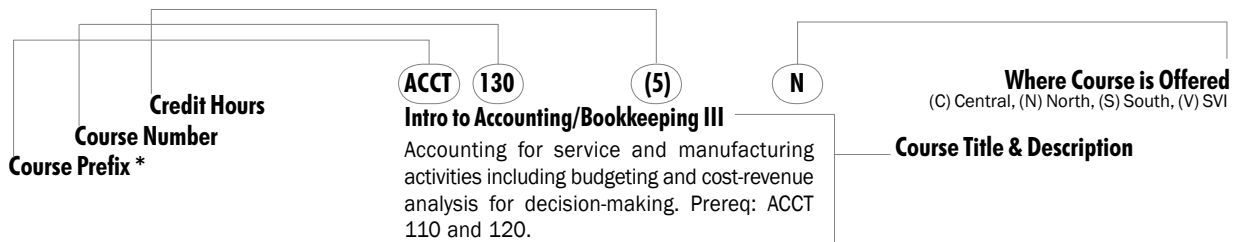


# Combined Campus COURSE DESCRIPTIONS



In this section you will find brief descriptions of courses currently offered at the three Seattle Community Colleges and the Seattle Vocational Institute. Guides on pages 325–331 contain cross-referenced lists of the new Common Course Numbering system (CCN) changes and course prefixes and names to assist you in locating courses associated with a particular program. Courses are updated on an ongoing basis, and the most current course information is available at: [www.seattlecolleges.edu](http://www.seattlecolleges.edu)

## How to Read Course Descriptions



\* Course prefixes ending with “&” (example: ACCT&) are part of a new statewide common course numbering system. See pages 4 and 325 for more information.

# COMBINED CAMPUS Course Descriptions

## FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

### PREFIX TO NAME

HIN . . . . . Watch Technology

### NAME TO PREFIX

Watch Technology . . . . . HIN

## ACCOUNTING

*NOTE: While ACCT& 201, 202 and 203 (Formerly ACC 210, 220 and 230) generally transfer to four-year institutions, some institutions may also accept other accounting courses. Business administration students should check in advance with the four-year institutions of their choice to determine the transferability of any accounting course. Non-native or ESL students at North Seattle Community College should see their advisor for prerequisites.*

### ACCT 110 (5) N,S Intro to Accounting/Bookkeeping I

Development of the accounting cycle for the sole proprietor, covering service and merchandising, types of businesses, special journals, payroll and financial statements. Must be taken concurrently with ACCT 111 (S).

### ACCT 111 (3) S Intro to Accounting Computer Applications I

Provides opportunity to complete applications using both manual and computerized systems. Prereq: ASSET: W&R=43, NS=43; SLEP: Combined=61, NS=10 and concurrent enrollment in ACCT 110.

### ACCT 120 (5) N,S Intro to Accounting/Bookkeeping II

Specialized accounting procedures for merchandising businesses and partnerships. Intro to accounting for corporations. Prereq: ACCT 110 with 2.0 or higher; must be taken concurrently with ACCT 121 (S).

### ACCT 121 (3) S Intro to Accounting Computer Applications II

Provides opportunity to complete applications using manual and computer systems. Prereq: ACCT 110/111 with 2.0 or higher and concurrent enrollment in ACCT 120.

### ACCT 130 (5) N Intro to Accounting/Bookkeeping III

Accounting for service and manufacturing activities including budgeting and cost-revenue analysis for decision-making. Prereq: ACCT 110 and 120.

### ACCT 131 (5) N QuickBooks

Hands-on use of QuickBooks to record business transactions, prepare customer invoices, pay vendors and record payroll. QuickBooks organizes and summarizes all financial data and produces a myriad of reports.

### ACCT& 201 (5) C,N,S Principles of Accounting I

(Formerly ACC 210 – Financial Accounting Fundamentals I) Basic accounting concepts, principles and procedures for recording business transactions and developing financial accounting reports. Recommended: ACCT 110 or sophomore standing (N,S).

### ACCT& 202 (5) C,N,S Principles of Accounting II

(Formerly ACC 220 – Financial Accounting Fundamentals II) Application of basic accounting concepts, principles and procedures to more complex business situations in a corporate setting. Prereq: ACCT& 201 or ACC 210 or permission (N,S).

### ACCT& 203 (5) C,N,S Principles of Accounting III

(Formerly ACC 230 – Fundamentals of Managerial Accounting) Analysis of accounting data as part of the managerial process of planning, decision-making and control. Concentrates on economic decision-making in enterprises. Includes computerized element. Prereq: ACCT 120, ACCT& 202 or ACC 220 or permission (C, N); ACCT 120 or ACCT& 202 or ACC 220 or permission (S).

### ACCT 214 (5) S Accounting Systems

Computer applications of basic accounting concepts, principles and procedures. Lotus 1-2-3 or Excel applications. Including but not limited to discussions of QuickBooks, Excel, and Microsoft Accounting. Prereq: ACCT 110 or ACCT& 201 or ACC 210 (N); ACCT 110/120 or ACCT& 201 or ACC 210; with a 2.0 or higher in either (S).

### ACCT 215 (5) N Accounting for Small Business Owners

Gain skills in accounting and financing practices necessary to successfully operate your own small business. Learn cash flows; financing; cost-volume-profit analysis; controlling tax liabilities; insurance; federal, state and local reporting requirements; risk management; investing in long-lived assets and using ratios to evaluate operations.

### ACCT 250 (5) N Accounting Capstone Course

Final accounting course in 2-year degree program. Integrate and synthesize knowledge, skills and experiences from prior accounting classes. Covers ethics, internal control, systems configuration, financial research, budgeting and development of a personal portfolio. Prereq: ACCT& 202 or ACC 220 or permission.

### ACCT 251 (5) C,N Intermediate Accounting I

In-depth review of financial accounting principles. Emphasizes the conceptual framework of accounting and revenue and expense recognition. Prereq: ACCT& 202 or ACC 220 or permission.

### ACCT 252 (5) C,N Intermediate Accounting II

In-depth review of financial accounting principles. Emphasizes the conceptual framework of accounting and revenue and expense recognition. Prereq: ACCT& 202 or ACC 220 or permission.

### ACCT 255 (5) C,N Federal Income Tax I

Intro to individual tax laws (as opposed to business tax laws). Includes preparation of many common forms. Prereq: ACCT& 201 or ACC 210 or permission.

### ACCT 256 (5) N Federal Income Tax II

Theory of taxation and application to the preparation of partnership and corporate tax reports and tax returns. Prereq: ACCT& 202 or ACC 220 and ACCT 255 or permission.

### ACCT 257 (5) C,N,S Business Tax Accounting

Basic principles, practices and governmental regulations (federal, Washington state and local) involved in business tax accounting. Includes filing returns, record-keeping, tax planning, registrations and business licenses. Prereq: ACCT 120 or ACCT& 202 (N) or ACC 220 or permission.

**ACCT 260 (5) N**  
**Peachtree Accounting**

A hands-on approach to learning Peachtree Accounting Software, widely used by service and merchandising businesses and accountants. Utilize various modules to prepare internal and external reports. Prereq: ACCT 110, ACCT& 201 or ACC 210 or permission.

**ACCT 261 (5) N**  
**Advanced Computerized Accounting**

Simulates real-world business practices and procedures using the latest computerized accounting software. Create a customized chart of accounts, hire employees, issue payroll, sell products and services, buy from vendors and report to all federal, state, county and city governmental agencies. Establish and use budgets and make loan applications. Prereq: ACCT 131 or ACCT 260 and ACCT& 201 or ACC 210 or instructor permission.

**ACCT 265 (5) C**  
**Accounting for Not-For Profit & Governmental Entities**

Covers basic accounting principles and practices as applied to governmental and nonprofit entities; emphasizes use of funds in planning, budgeting and controlling operations of such agencies. Prereq: ACCT& 202 or ACC 220 or permission.

**ACCT 270 (5) C,N**  
**Cost Accounting**

Theory of cost accounting; cost systems; sources of cost data and their accumulation, allocation and analysis; and managerial control through cost data. Prereq: ACCT& 203 or ACC 230 or permission.

**ACCT 275 (5) N**  
**Auditing**

Focuses on the legal, ethical, professional and operational aspects of providing audit and assurance services. Prereq: ACCT 251.

**ACCT 290 (2-5) N**  
**Independent Study in Accounting**

Collaboration between student and instructor to perform research in the field of accounting. Prereq: Permission.

**ACCT 298 (1-5) C**  
**Special Topics – Accounting**

Seminar on selected topics or activities in accounting. Prereq: Permission.

**ACCT 299 (1-5) C**  
**Independent Study – Accounting**

Independent study of selected accounting topics. Prereq: Permission.

**ADULT BASIC EDUCATION**

**ABE 020 (1-15) C,N**  
**Adult Basic Education – Level 2**

Reading, writing and math skills. Review and apply language skills, correct usage and spelling. Math includes computation and application problems with addition, subtraction, multiplication and division. Prereq: Division placement test.

**ABE 021 (1-15) C,N**  
**Adult Basic Education – Level 2 Math**

Addition, subtraction, multiplication and division of whole numbers.

**ABE 022 (1-15) C,N**  
**Adult Basic Education – Level 2A Communication Skills**

Learn to participate in groups, recognize learning styles, recall and restate information. Covers reading and using simple, familiar materials (menus, signs, work schedules). Learn to write with limited proficiency (complete personal information on forms, copy text and write in simple sentences).

**ABE 024 (1-15) C,N**  
**Computer Assisted ABE – Level 2**

Computer lab class provides an opportunity to practice basic skills learned in class or learn new skills independently. Use popular computer programs as well as specialized basic skills software. Emphasizes keyboarding and computer literacy skills for those new to personal computers.

**ABE 028 (1-15) C**  
**Computer Assisted ABE – Level 2**

Computer lab class provides an opportunity to practice basic skills learned in class or learn new skills independently. Use popular word processing and spreadsheet programs, as well as specialized basic skills software. Emphasizes keyboarding and computer literacy skills for those new to personal computers.

**ABE 030 (1-15) C,N,S**  
**Adult Basic Education – Level 3**

Concentration on reading comprehension, making inferences, recognizing fact and opinion, vocabulary development and writing simple paragraphs. Prereq: ABE 020 (N,C) or division placement test.

**ABE 031 (1-15) C,N,S**  
**Adult Basic Education – Level 3 Math**

Review of whole numbers. Concentration on fractions and decimals. Intro to percents. Prereq: ABE 021 or division placement test (N,C).

**ABE 032 (1-15) C,N,S**  
**Adult Basic Education – Level 3 Comm Skills**

Covers reading, writing and communication skills for review of basic grammar, punctuation and spelling. Concentration on reading comprehension, main idea, vocabulary development, making inferences. Covers single paragraph writing. Prereq: ABE 031 or division placement test (C).

**ABE 034 (1-15) C,S**  
**Computer-Assisted ABE – Level 3**

More advanced computer-assisted practice in reading, writing and math. Learn from textbooks, fiction, policies and procedures manuals, and purchase agreements. Write resumes, reports and formal letters. Compute percentages, ratios, proportions, simple formulas and interpret graphs and charts.

**ABE 040 (1-15) C,N,S**  
**Adult Basic Education – Level 4**

Focuses on reading comprehension, making inferences, recognizing fact and opinion, vocabulary development, basic sentence patterns, paragraphs, punctuation, capitalization and correct word usage. Covers multi-paragraph essays. Prereq: ABE 030 or division placement test (N,C).

**ABE 041 (1-15) C,N,S**  
**Adult Basic Education – Level 4 Math**

Review of ratio and proportion, percents and measurement. Prereq: ABE math level 3 or division placement test (N,C).

**ABE 042 (1-15) C,N,S**  
**Adult Basic Education – Level 4 Comm Skill**

Further development of skills in reading, vocabulary, grammar and multi-paragraph essays. Prereq: ABE 030 or division placement test (N,C).

**ABE 044 (1-15) C,N,S**  
**Computer-Assisted ABE – Level 4**

More advanced computer-assisted practice in reading, writing, math and test-taking skills. Instructional activities will improve general reading, writing, math and test-taking skills. Take practice tests and work with instructor until ready to take the college division placement test (C,S).

Covers the basics of Microsoft Office applications. Self-paced with a high level of student/teacher interaction (N).



**ABE 054 (1-15) C,N**  
**GED Preparation**

Use computers to improve basic skills of reading, writing and math. Prepare to take the College Placement Test and receive scores high enough to enter developmental education courses in English and math. Take practice tests and work with instructor until ready for the actual test.

**ABE 060 (1-15) C,S**  
**Adult Secondary Education ASSET/  
COMPASS Prep**

Preparation to pass exams needed to enter a college program.

**ABE 061 (1-15) C**  
**Adult Secondary Education Math Level 6**

Preparation to pass the math portion of the COMPASS exams.

**ABE 062 (1-15) C**  
**Adult Secondary Education Comm Level 6**

Preparation to pass the Communications portion of the COMPASS exam needed to enter a college program. Emphasizes effective essay writing, reading college text and adapting to the college culture.

**ABE 064 (1-15) C**  
**Computer-Assisted ABE – Level 6**

Advanced computer-assisted skill-building in reading, writing, math and test-taking. Prepare for the COMPASS Test. Take practice tests and work with instructor until ready to take the actual test.

**ABE 070 (1-3) C,N,S**  
**Educational Interview for ABE/GED Students**

Helps ABE/GED students at all competency levels identify their current abilities, characteristics, styles and readiness to learn. Intro to campus resources.

**HSC 091 (5) C**  
**EDP Skill Enhancement I**

Assessment portion of the National External Diploma Program (EDP). Measures reading, writing and math skills. Work individually with an instructor to identify skills needed for successful completion of the diploma program. [www.nedp.org](http://www.nedp.org)

**HSC 092 (5) C**  
**EDP Skill Enhancement II**

Project portion of the National External Diploma Program (EDP). Working with an instructor, complete five projects that demonstrate skills in 65 generalized competencies, including communication and computation. Demonstrate occupational preparedness by completing a sixth individualized project based on employment or other specific experiences. Must complete these projects with 100% accuracy.

**ALLIED HEALTH**

*Includes courses relevant to Emergency Medical Technician (EMT), Medical Assisting, Medical Office Assisting, Medical Transcription, Phlebotomy and Surgical Technician*

**AHE 101 (8) S**  
**Front Office Medical Assisting Procedures**

Provides skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within company guidelines.

**AHE 104 (9) S**  
**Medical Office Procedures &  
Document Processing**

Learn basic administrative skills and procedures using MS Office Suite and keyboarding, including creating patient medical documents. Includes appointment processing, written and oral communications, medical records management, filing systems, office environment and patient education. Prereq: Typing 35 wpm, CASAS Reading score of 220 and basic skills in Microsoft Office Suite.

**AHE 105 (10) S**  
**Medical Terminology,  
Insurance Billing & Coding**

Includes medical terms, therapeutic interventions, pharmacology and surgical terms. Intro to medical insurance processing, coding, claims and the use of Medisoft for invoicing and scheduling for ambulatory care settings, dental offices and hospitals. Prereq: Typing 35 wpm, CASAS Reading score of 220 and basic skills in Microsoft Office Suite.

**AHE 108 (5) N**  
**Bridge to Success**

Preparation for entry into chosen health care programs. Focuses on facilitating individual growth into a successful, competent and caring health care professional, with emphasis on the relationship and acquisition of study skills and job skills.

**AHE 111 (12) C**  
**Nursing Assistant**

Learn basic nursing skills including First Aid, CPR, HIV/AIDS and supervised clinical training in a long-term care facility. Gain student success and career transition skills. After successful completion students are eligible to sit for the State of Washington NAC exam for certification as a Nurse Assistant.,

**AHE 117 (1) C**  
**Medical Terminology I**

Intro to medical terminology. Emphasizes vocabulary and knowledge to communicate with health care team. Prereq: Enrollment in Surgical Technology.

**AHE 124 (4) S**  
**Software Applications for Health Care**

Learn Patient Accounting Software. Features include standard HCFA health insurance claims forms, diagnoses codes, patient ledgers, statements, patient appointment book and specialized reporting. Take concurrently with Medical Coding and Insurance Processing (AHE 130).

**AHE 127 (1) C**  
**Medical Terminology II**

Continuation of AHE 117. Terminology of the circulatory/lymphatic, urinary, reproductive and musculoskeletal systems and their pathophysiology. Prereq: Enrollment in Surgical Technology.

**AHE 130 (5) S**  
**Medical Coding & Insurance Processing**

Intro to diagnosis and procedural coding. Covers basic ICD-9 (International Classification of Diseases) and the CPT (Current Procedural Terminology) coding systems, which are recognized by the insurance industry, the physician and medical office as the standard for billing and reimbursement. Includes documentation, information flow, insurance forms and medical office policies. Take concurrently with Software Applications for Health Care (AHE 124).

**AHE 131 (8) S**  
**Medical Coding, Insurance, Medi-Soft**

Provides skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within company guidelines.

**AHE 137 (1) C**  
**Medical Terminology III**

Continuation of AHE 127. Terminology of the respiratory, integumentary, endocrine, nervous systems and their pathophysiology. Prereq: Enrollment in Surgical Technology.

<p><b>AHE 140 (10) C</b>  <b>Central Supply/Instrument Technician</b>            For students interested in being a certified Central Supply/Instrument Technician. Addresses infection control, supplying and processing and distribution of supplies. Gain knowledge in safety, inventories, interpersonal skills, communication, interdisciplinary teams, professionalism and ethics.</p> <p><b>AHE 145 (4) S</b>  <b>Medical Document Processing</b>            Provides skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within company guidelines.</p> <p><b>AHE 150 (1) C</b>  <b>HIV/AIDS Education</b>            Meets requirements for health care professionals under RCW 18.130. Covers etiology and epidemiology of HIV, transmission and infection control, testing and counseling, clinical manifestations and treatment and psychosocial issues. Approved by the Washington State Department of Licensing.</p> <p><b>AHE 165 (3) C,N</b>  <b>Medical Terminology I</b>            Fundamentals of medical terminology, with emphasis on basic rules, vocabulary building, abbreviations and knowledge of medical terms relating to body systems and medical specialties.</p> <p><b>AHE 166 (3) C</b>  <b>Medical Terminology II</b>            Continuation of AHE 165. Prereq: AHE 165.</p> <p><b>AHE 167 (3) C</b>  <b>Medical Terminology III</b>            Continuation of AHE 166. Prereq: AHE 166.</p> <p><b>AHE 168 (5) S</b>  <b>Medical Terminology</b>            Intro to the concept of word building with Greek and Latin word roots, prefixes and suffixes, resulting in the acquisition of a large medical vocabulary. Also available as correspondence course.</p>	<p><b>AHE 170 (1) S</b>  <b>HIV/Blood-Borne Pathogens</b>            Covers the principles of disease transmission in compliance with OSHA Standard 2001 and the Washington State AIDS Omnibus Law for Health Care Providers Requiring Seven Hours of HIV/AIDS Education. Includes occurrence and spread of infection, exposure control plan and use of personal protective equipment. Examines employer and employee responsibilities, guidelines for environmental infection control for health care facilities, exposure incidents and needle stick safety and prevention.</p> <p><b>AHE 175 (3) N</b>  <b>Intro to Pathology for Medical Assistants</b>            Intro to common diseases and medical conditions for each body system including signs and symptoms related to laboratory tests and treatments. Focuses on the role of the medical assistant in helping the physician with patient care and in triage situations.</p> <p><b>AHE 190 (8) N</b>  <b>Emergency Medical Technician</b>            Provides training in pre-hospital emergency care. Follows Department of Transportation EMT Basic Curriculum, State of Washington law and King County EMS guidelines.</p> <p><b>AHE 191 (2-5) N</b>  <b>Emergency Medical Technician Continuing Education</b>            Provides appropriate continuing education for EMTs to meet the State of Washington's requirements for recertification and upgrading.</p> <p><b>AHE 195 (4) C</b>  <b>Pathophysiology for Health Professions</b>            Overview of human physiological changes which cause or are the result of pathologic processes. Expands knowledge of human anatomy and physiology of the pathophysiological processes in major organ systems of the body. Covers key concepts of homeostasis.</p> <p><b>AHE 197, 198, 199 (2-5) C</b>  <b>Work Experience – Allied Health</b>            Allows students to earn work experience credit in Allied Health field. Prereq: Permission.</p> <p><b>AHE 201 (2) N</b>  <b>Medical Transcription</b>            Orientation and instruction of medical transcription including practice in preparing physician reports.</p>	<p><b>AHE 205 (3-4) N</b>  <b>Medical Insurance Online Distance Learning</b>            Offers detailed instruction in outpatient medical reimbursement from federal, state and private payers including traditional and managed care systems. Emphasizes all aspects of insurance claim processing from patient registration to reconciliation of payment. Focuses on optimal customer relations and reimbursement strategies.</p> <p><b>AHE 210 (4) N</b>  <b>Medical Office Practice</b>            Covers administrative medical office procedures and responsibilities of the medical assistant.</p> <p><b>AHE 211 (7) N</b>  <b>Administrative Procedures/ Insurance Billing &amp; Coding</b>            Practice in principles and competencies, both manual and computerized, in single-entry bookkeeping, medical insurance billing and coding and accounts receivable. Develops skills for seeking employment in medical assisting.</p> <p><b>AHE 232 (5) N</b>  <b>Intro to Clinical Software</b>            Review of health information systems including clinical, administrative and enterprise health information systems. Learn reports, queries, databases, interfaces, integrated systems and modules. Prereq: MATH 098, ENGL&amp; 101 or ENG 101 and BUS 106.</p> <p><b>AHE 233 (5) N</b>  <b>Intro to Health Informatics</b>            Intro to health informatics including definitions, theory, technologies, workflow, expectations in the field, tools and professional organizations. Prereq: MATH 098, ENGL&amp; 101 or ENG 101 and BUS 106.</p> <p><b>AHE 234 (5) N</b>  <b>HIPAA &amp; Network Security</b>            Review of HIPAA regulations and guidelines, basic IT network security and intro to health informatics. Prereq: IT 100 and IT 101 or BUS 169.</p> <p><b>AHE 242 (2) N</b>  <b>Basic Blood Collection Techniques</b>            Theory and laboratory practice in supervised blood collection to meet requirements for job entry as a phlebotomist (blood drawer). Prereq: Take or placement into ENGL&amp; 101 or ENG 101.</p>
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**AHE 250 (4) N**  
**Examining Room Procedures I**

Covers routine clinical, diagnostic and therapeutic procedures used by a physician in outpatient settings. Includes theory, demonstration and practice.

**AHE 251 (5) N**  
**Examining Room Procedures/Pharmacology**

Continuation of AHE 250. Covers additional procedures, including medication administration, minor surgery assisting and first-aid/CPR. Includes theory, documentation and practice.

**AHE 290 (7) N**  
**Medical Assistant Externship**

232 hours of unpaid experience in a medical office.

**AHE 296 (2) C,N**  
**Clinical Seminar**

Seminar format to share and compare clinical experiences, hold evaluative critiques and obtain additional instructional support in special areas of medical assisting.

**AHE 299 (1-3) C**  
**Allied Health Seminar**

Seminar format to address current trends and issues in allied health occupations.

**AMERICAN ETHNIC STUDIES****AME 150 (5) N,S**  
**America's Ethnic History**

Intro to U.S. history as a multicultural phenomenon. Emphasizes the interaction of American Indian, African, European, Latino and Asian immigrants in the development of the U.S. Focuses on conflict and cooperation in the areas of economics, politics and culture.

**AME 151 (5) N,S**  
**Societies & Cultures of the U.S.**

Intro to contemporary issues in American ethnic and race relations. Emphasizes racism, prejudice, stereotypes and equity issues through an examination of Asian, African and Indigenous Americans. Focuses on diversity of interests and identities within each community.

**AME 160 (2-5) C**  
**Special Topics in Multicultural Studies**

Intro to the continuum of social justice issues that emphasize the role of multicultural collaboration in the establishment and securing of democracy and democratic practice. Considers the forces shaping social change past and present; the role of the individual (change agent); and the personal characteristics and skills required of change agents.

**AME 200 (5) N**  
**Leadership & Social Change**

Examines issues raised by civil rights struggles in the United States. Covers the forces shaping social change, the role of the individual or "change agent," and the personal skills required of change agents. Incorporates community service as a central teaching technique.

**AME 201 (5) S**  
**Diversity & Social Justice**

Combines theoretical frameworks, practical issues and experiential activities to help students develop skills and identify plans of action in eradicating the multiple forms of social oppression. Use critical analysis as an investigative tool to examine racism, sexism, hetero-sexism, able-ism, class-ism, religious oppression and aspects of internalized oppression.

**AMERICAN SIGN LANGUAGE**

*See Languages & Literature, page 242.*

**ANATOMY & PHYSIOLOGY**

*See BIOLOGY, page 183.*

**ANTHROPOLOGY****ANTH& 100 (5) C,N,S**  
**Survey of Anthropology**

(Formerly ANT 100) Survey of the physical and cultural development of human beings. Includes evolution, archaeology, social structure, material culture, human ecology and communications.

**ANTH& 106 (5) C,N,S**  
**American Mosaic**

(Formerly ANT 102 – Intro to American Culture) Focuses on implications and consequences of America's cultural uniqueness. Provides an insightful look at ourselves from anthropological and sociological perspectives. Field trips. May be taken as SOC 102.

**ANTH 113 (5) C,N**  
**Africa**

A survey of cultures, languages and social diversities of Africa south of the Sahara. Examines Africa's role in the contemporary world.

**ANTH& 125 (5) C,N,S**  
**Human Variation**

(Formerly ANT 180) Covers past and present evolutionary forces contributing to variations in human populations. Investigates the biological and social concept of race.

**ANTH 130 (3-5) C,N,S**  
**World Cultures**

Exploration of ethnic traditions of the world, the concepts of worldview and the way people think in various cultures, using an ecological approach. Employs cultural relativism to examine traditional religious practices and educational systems in a comparative framework.

**ANTH 135 (3-5) C**  
**Cultural Ecology**

The development of human societies with special emphasis on relationships between environments and respective cultures throughout the world. Focus on conflicts between traditional cultures and pressures of modernization.

**ANTH 201 (5) C**  
**Contemporary Issues in Anthropology**

(Formerly ANT 200) Analysis of current research on a particular topic in cultural or physical anthropology. Topic varies by quarter; check with instructor for specific course content.

**ANTH& 204 (5) C,N,S**  
**Archaeology**

(Formerly ANT 205 – Principles of Archeology) Intro to archaeology and the interpretation of archaeological remains.

**ANTH& 205 (5) C,N,S**  
**Biological Anthropology**

(Formerly ANT 201 – Physical Anthropology) Intro to biological and cultural evolution of humans with evidence from fossil and contemporary populations. Examines physical and biological variations of humans past and present. Emphasis on developing a working vocabulary of anthropological terms.

**ANTH& 206 (5) C,N,S**  
**Cultural Anthropology**

(Formerly ANT 202) Intro to human culture, including social organization, economics, political systems, religion, technology, values, art and language. Cultural perspective focuses on contemporary literate and pre-literate societies.

**ANTH& 210 (5) C,N,S**  
**Indians of North America**

(Formerly ANT 110) Ethnographic survey of North American native cultures. Examination of historical and contemporary problems regarding legislation, treaties, reservations, fishing rights and education.

**ANTH 211 (5) S**  
**Peoples of Mainland Southeast Asia**

(Formerly ANT 210) History and contemporary issues of the nations of Burma, Cambodia, Laos, Thailand and Vietnam and the tribal people who live there.

**ANTH 212 (3) N**  
**Methods of East African Archaeological Research**

(Formerly ANT 216) Intro to paleo-anthropological research in East Africa in “digging up” hominid evolutionary past. Analyze archeological remains. Observe terrain and type of environment occupied by early hominid. Discuss patterns of tool manufacture and use. Lectures and field participation at actual archeological sites in Kenya, East Africa (Koobi, Fora, Lake Turkana).

**ANTH 213 (3) N**  
**East African Hominid Evolution**

(Formerly ANT 215) Surveys origin and relations of the extinct forms of humankind that have been discovered in East Africa. Review of some of the earliest hominids of the late Cenozoic Era through the present. Focuses on the biocultural stages of evolution to modern hominid. Includes lectures and field sessions on site in Kenya, East Africa.

**ANTH& 216 (5) C,N,S**  
**Northwest Coast Indians**

(Formerly ANT 107 – Indians of the Pacific Northwest) Ethnographic survey of the Indians of Alaska, British Columbia, Washington, Oregon and Western Idaho. Examines prehistoric and contemporary cultures and controversial legislation regarding fishing, water rights and treaties.

**ANTH& 228 (5) C,N,S**  
**Cultures of the Middle East**

(Formerly ANT 255) Multidisciplinary intro to Middle Eastern cultures including ecological, economic, political and religious factors contributing to the region’s diversity. Exploration of historical and contemporary forces and changing interpretations by both Westerners and Middle Easterners.

**ANTH 298 (1-5) C,N,S**  
**Special Topics in Anthropology**

Independent study or fieldwork in anthropology. Periodic meetings with instructor. Prereq: Permission.

**ANTH 299 (3-5) C,N,S**  
**Special Problems in Anthropology**

Small group setting to cover selected topics in anthropology. Prereq: Permission.

**APPAREL DESIGN & SERVICES****ADS 096 (2) C**  
**Intro to Apparel Design Construction Level 1**

For the novice who has little or no sewing experience and is considering entry into the Apparel Design program. Through construction of a simple garment and samples, learn sewing terms, understand and work with patterns, layout and cutting techniques, industrial sewing machines and more.

**ADS 098 (2) C**  
**Intro to Apparel Design Construction Level 2**

For the intermediate beginner or those wishing to update their sewing skills. Use industrial sewing and pressing equipment to complete more complex sewing technique samples and a sample garment. Excellent preparation for those considering entry into the Apparel Design and Services Program. Prereq: ADS 096 or prior sewing experience with understanding of patterns, grainline and layout.

**ADS 100 (2) C**  
**Intro to Apparel Design Construction Level 3**

For the advanced beginner or those wishing to update their sewing skills. Use industrial sewing and pressing equipment to complete a more complex sewing sample and sample garment. Prereq: Completion of ADS 098 and/or intermediate sewing skills including sewing machine handling skills, ability to sew a variety of garments, understand construction terminology and pattern use and experience laying out and cutting garments.

**ADS 101 (4) C**  
**Construction Techniques for Professional Applications**

Presents professional garment construction skills, emphasizing accuracy, production of quality garments and samples, and operation of industrial lockstitch and buttonhole techniques.

**ADS 102 (4) C**  
**Intermediate Construction for Professional Applications**

Acquire intermediate construction skills and continue to develop techniques while learning operations on the industrial lockstitch, buttonhole and serger machines. Emphasis on accuracy and speed.

**ADS 103 (4) C**  
**Mass Market Production Techniques**

Application of skills learned in ADS 101 and 102. Using industrial production methods, acquire speed while maintaining accuracy. Make several garments incorporating industrial techniques.

**ADS 111 (4) C**  
**Design Through Flat Patternmaking I**

Development of different styles of garments, using flat pattern method. Create patterns by adding design lines, gathers, pleating and pockets. Development of sleeve and color variations.

**ADS 112 (4) C**  
**Pattern Development Through Draping**

Intro to pattern development using draping and the flat pattern method. Learn techniques for draping fabric to create patterns and basic flat pattern manipulations.

**ADS 113 (4) C**  
**Design Through Flat Patternmaking II**

Continuation of ADS 111 and 112. Utilize existing pattern blocks to draft new garment designs.



**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**ADS 122 (2) C**  
**Professional Alterations & Fitting I**

First of a two-part series on professional garment alteration techniques as well as methods for evaluating fit and achieving well fitting garments. Employ business management practices, including recordkeeping and client relations.

**ADS 138 (3) C**  
**Fashion History**

Identify key clothing items from major historical periods and gain tools for communicating clothing concepts. Explore how human relations, social influences and cultural ideals affect fashion. Enhance understanding of current trends in society and fashion.

**ADS 139 (2) C**  
**Intro to Apparel Manufacturing**

Covers all aspects of production including materials acquisition, production scheduling, product costing, machine processes and calculating break-even points.

**ADS 141 (2) C**  
**Textile Technology & Design I**

First of three courses on basic fiber and fabric information for the apparel industry. Research fibers, fabric characteristics and the history of textiles.

**ADS 142 (2) C**  
**Textile Technology & Design II**

Second of three courses on basic color theory, dye and print technology as it applies to the apparel industry.

**ADS 151 (3) C**  
**Computer Applications for Apparel Design I**

Intro to using the computer while gaining terminology and practical skills used in the apparel field.

**ADS 152 (3) C**  
**Computer Applications for Apparel Design II**

Continue acquiring Apparel Design computer skills, terminology and procedures. Emphasizes graphics programs commonly used in the industry to produce technical drawings and visual presentations. Prereq: ADS 151 or MIC 141.

**ADS 197 (1-5) C**  
**Work Experience – Apparel Design & Services**

Earn work experience credit in apparel design. Prereq: Permission.

**ADS 205 (4) C**  
**Contemporary Tailoring**

An overview of both contemporary and traditional tailoring methods. Emphasis on accurate cutting, marking, assembling in units and precise sewing.

**ADS 207 (4) C**  
**Active Sportswear Construction**

Taken concurrently with ADS 228. Emphasizes construction techniques used in the garment industry. Produce more complex and advanced garments made from patterns developed in ADS 228.

**ADS 215 (4) C**  
**Intro to Pattern Grading for the Garment Industry**

Learn to grade patterns up to large sizes and down to small sizes according to certain specifications and measurements, using the grid and shift method.

**ADS 221 (2) C**  
**Professional Alterations & Fitting II**

Builds on the basic skills acquired in ADS 122 using methods for altering more complex garments.

**ADS 226 (4) C**  
**Intermediate Pattern Grading**

Application of knowledge and skills acquired in ADS 215 to more complex and difficult patterns. Intro to computerized pattern grading.

**ADS 227 (4) C**  
**Pattern Design for Ready to Wear**

Design patterns and garments from line drawings. Emphasis on producing patterns with speed and accuracy to apparel industry standards.

**ADS 228 (4) C**  
**Pattern Design for Active Sportswear**

Taken concurrently with ADS 207. Design patterns using industry standards from samples and sketches. Emphasis on patternmaking for active sportswear and outerwear.

**ADS 229 (2) C**  
**Design a Line**

Explore different elements of designing a line of clothing to industry standards. Intro to illustration and drawing techniques. Develop boards for line presentations. Design a line for production in ADS 250.

**ADS 230 (2) C**  
**Portfolio & Resume Development**

Produce a professional portfolio and resume. Learn job search and interviewing strategies.

**ADS 240 (3) C**  
**Computerized Pattern Grading**

Grade patterns using computer-aided design technology and the principles learned in ADS 215 and 226.

**ADS 243 (2) C**  
**Textile Technology & Design III**

Third of three courses. Integrate concepts and skills learned in ADS 141/142 and apply them to the development of surface designs for fabrics and garment silhouettes. Focus on design methodology, textile technology and apparel industry practices.

**ADS 250 (6) C**  
**Final Line Design & Development**

Taking the line of clothing designed in ADS 229, produce garments, patterns and specification packages according to apparel industry standards. Includes presentation and display of final line at a portfolio show the last week of the quarter.

**ADS 298 (1-5) C**  
**Special Topics – Apparel Design & Services**

Seminar on selected topics in Apparel Design. For students who wish to upgrade their skill in an area related to but not offered as part of the regular ADS curriculum. Prereq: Permission.



**ART**

**ART& 100 (5) C,N,S**  
**Art Appreciation**  
 (Formerly ART 100 – Intro to Art) Historical backgrounds and design fundamentals that have affected art using slide lectures, reading and practical studio applications.

**ART 101 (5) N,S**  
**Design**  
 Studio series in the fundamentals of two-dimensional art with problems based on line, space, texture, shape and color theories. Includes practical applications of theories to design. Required for art majors.

**ART 102 (5) C,N,S**  
**Design**  
 Continuation of ART 101. Intro to three-dimensional space organization utilizing the elements of design. Construction in sculptural formats. Required for art majors. Prereq: ART 101.

**ART 103 (5) C,S**  
**Design**  
 Tutorial in individual problems in design. Prereq: Permission.

**ART 105 (5) C,S**  
**Survey of Modern Art**  
 Understanding today's cultural environment and viewpoint by using art and architecture to analyze cultural philosophies of the past that affect today's aesthetic values.

**ART 110 (5) N**  
**Visualizing Science & Technology**  
 Hands-on course to increase ability to represent complex information using the principles and elements of the visual arts. Explore modes of illustration and presentation from pencil to pixel and from paper to PowerPoint.

**ART 111 (5) C,N,S**  
**Drawing**  
 Study of line, value, space, perspective and composition through the use of charcoal, pencil, pen and brush.

**ART 112 (5) C,N,S**  
**Drawing**  
 Drawing from the human figure in black and white media. Focus on composition. Emphasis on proportion and shading in short sketches as well as long poses. Prereq: ART 111 or permission.

**ART 113 (5) C,N,S**  
**Drawing**  
 Continuation of ART 112. Drawing from human figures in black, white and color media. Emphasis on expression and composition. Prereq: ART 112 or permission.

**ART 114 (5) N,S**  
**Intro to Digital Photography I**  
 Intro to digital camera use, photography basics and Photoshop editing. Students must provide their own digital camera with 3 or more mega-pixels, Auto, Auto-P, Aperture Priority, Shutter Priority and full manual Exposure Modes. Students expected to have or buy accessories costing approximately \$175-\$599.

**ART 115 (5) N,S**  
**Digital Photography II**  
 Covers more photography basics involving lab, lighting, models and presentation. Camera should have 3 or more megapixels, Auto, Auto-P, Aperture Priority, Shutter Priority and full manual Exposure Modes. Students expected to have or buy accessories costing approximately \$175-\$599. Prereq: ART 114 or permission.

**ART 121 (5) C,N,S**  
**Intro to Printmaking**  
 Study and application of basic relief print media. Covers linocuts, woodcuts, multicolor prints and experimental monoprints. Introduces relief and intaglio techniques, with emphasis on small editions. Recommended: Some drawing background.

**ART 122 (5) C,N**  
**Intro to Printmaking (Intermediate)**  
 Covers various aspects of printmaking, with an emphasis on intaglio printmaking processes. Introduces drypoint, engraving and etching with hard and soft grounds. Learn water and acid etching and the use of photosensitive emulsions on metal plates. Recommended: Some drawing background.

**ART 123 (5) C,N**  
**The Painterly Print: Monotype & Monoprint**  
 Develop technical and conceptual skills to create the painterly print. Emphasis on sequential imagery, layered impressions, color use and inks, use of the press, plates and papers and evolution of personal imagery. Covers variation, using a matrix and altered monotypes. Recommended: Some drawing background.

**ART 163 (3) S**  
**Intro to Still Photography**  
 Covers basic photographic techniques using 35mm photographic equipment. Includes camera, exposure, lighting, composition, black and white darkroom work and digital imaging.

**ART 166 (5) S**  
**Video Art I**  
 Focuses on the art of digital video editing and shooting using Adobe Premiere. Explore in-depth digital video editing, effects, transitions, graphics animation, sound and music integration, selecting format, basic DVD authoring and distribution strategies and options. Create a finished digital video film. Also offered as CTN 166. Recommended: ART 210.

**ART 170 (3-5) C,S**  
**Photography as an Art**  
 Traces the history and distinctive properties of photography. Includes camera, exposure, lighting, composition, black and white darkroom work and digital imaging.

**ART 201 (5) C,N,S**  
**Painting**  
 Beginning painting in oil or synthetic media using still life. Emphasis on basics: composition, value studies, color mixing, canvas preparation, styles and techniques. Recommended: Drawing background.

**ART 202 (5) C,N,S**  
**Painting**  
 Further development of color and composition. Individual instruction. Prereq: ART 201 or permission.

**ART 203 (5) C,N,S**  
**Painting**  
 Further studies in color, composition and subject matter. Individual instruction. Prereq: ART 202 or permission.

**ART 205 (5) C,N,S**  
**Water Color Painting**  
 Intro to water color painting. Covers basic wash techniques, color mixture, value contrast, composition and wet into wet. Recommended: Some drawing background.

**ART 206 (5) C,N,S**  
**Water Color Painting**  
 Continuation of ART 205, based on a series of water color problems utilizing skills learned in the previous quarter. Further work with composition. Prereq: ART 205 or permission.

**ART 207 (5) C,N,S**  
**Water Color Painting**

Individual water color projects in series. Prereq: ART 206 or permission.

**ART 210 (5) N,S**  
**Computer Art**

First of 2 courses. Image design, creation and manipulation using vector-based and pixel-based programs. Combines fine art and technical aspects of digital composition for production of media formats including print and web-based. Previous drawing/design and basic computer skills strongly recommended.

**ART 211 (5) C,N,S**  
**Sculpture**

Fundamentals of composition in the round, in clay and plaster, using basic techniques of carving, casting and building. Prereq: One quarter of drawing, design, or permission.

**ART 212 (5) C,N,S**  
**Sculpture**

Fundamentals of relief composition in clay, plaster and wood using basic techniques of carving, casting and building. Prereq: ART 211 or permission.

**ART 213 (5) C,N**  
**Sculpture**

Fundamentals of three-dimensional composition with emphasis on life studies. Basic materials used are clay, plaster, or wood. Prereq: ART 212 or permission.

**ART 214 (5) C,N,S**  
**Advanced Computer Art**

Continuation of ART 210. Explores creative, technical and aesthetic concepts and problems for comprehensive fine art and commercial projects. Prereq: ART 210.

**ART 215 (5) C,S**  
**Advanced Computer Art II**

Continuation of ART 214. Advanced projects and intro to advanced programs. Prereq: ART 214.

**ART 216 (5) S**  
**Multimedia Art I**

Covers the key artistic concepts and practical skills in multimedia design and production: linear and nonlinear storytelling and the role of interactivity from aesthetic and technical viewpoints. Includes a survey of industry-standard multimedia production tools. Build several interactive projects using Macromedia Flash. Also offered as CTN 164. Recommended: ART 210.

**ART 217 (5) S**  
**Multimedia Art II**

Expand multimedia design and scripting skills. Technical focus on Macromedia Flash development using complex animation, advanced design and action scripting for increased interactivity. Covers event/event handler logic, creating variables, setting values and using Flash to create animation and effects for video. Also offered as CTN 205. Prereq: ART 216 or CTN 164.

**ART 221 (5) N**  
**Ceramic Art**

Beginning basic pottery design and construction. Emphasizes hand building coils and slabs, basic glazing and beginning pot throwing on the potter's wheel.

**ART 222 (5) N,S**  
**Ceramic Art**

Develop throwing skills. Understand basic glaze composition and kiln operation. Continue studies in techniques of surface decoration. Prereq: ART 221 or permission.

**ART 223 (5) N,S**  
**Ceramic Art**

Continuation of ART 222. Advanced work on the wheel. Emphasis on combining methods of construction. Learn basic glaze skills. Prereq: ART 222 or permission.

**ART 251 (5) C,N,S**  
**Art History**

Study of the major forms of visual expression including Paleolithic, Egyptian, Mesopotamian, Greek, Roman and Early Christian periods. Emphasis on European and Middle Eastern art (C, S).

**ART 252 (5) C,N,S**  
**Art History**

Continuation of ART 251 with emphasis on the Medieval period through the Renaissance focusing on European and Middle Eastern art.

**ART 253 (5) C,N,S**  
**Art History**

Continuation of ART 252 with emphasis on the 17th century Baroque through 20th century Western/Modern Art.

**ART 254 (3-5) C,S**  
**Survey of the Art of the Pacific Northwest**

Focus on visual arts of the Pacific Northwest, from early coastal tribal art to the present day. Covers architecture, sculpture, painting and analysis of contemporary art in public places.

**ART 255 (5) C,N,S**  
**History of the Art of Asia**

Study of the paintings, drawings, sculpture, architecture and crafts of India, China, Japan and other countries of Southeast Asia. Study of influences brought about through invasion, assimilation and transformation of Hinduism, Buddhism, Daoism and Confucianism as reflected in the arts, history and culture.

**ART 281 (5) N**  
**Jewelry Design I**

Basic jewelry design and construction with precious and/or semi-precious metals. Simple stone setting, tool usage, soldering, metal testing, properties and characteristics of metals and stone. Recommended: One quarter each of design and drawing.

**ART 282 (5) N**  
**Jewelry Design II**

A continued exploration of metal fabrication and jewelry design, covering surface enrichment, advanced forming techniques, faceted stone setting and intro to enameling. Prereq: ART 281.

**ART 283 (5) N**  
**Intro to Alloying & Jewelry Casting**

Explore the alloying and casting processes of Jewelry Design. Learn lost wax casting and rubber molding processes. Prereq: ART 282 or permission.

**ART 284 (5) N**  
**Bench Techniques & Practices in Metal**

Covers advanced bench skills and production techniques which encourage creation of innovative pieces with personal statements. Emphasis on creating a body of work that is ready for exhibition. Prereq: ART 283.

**ART 285 (4) N**  
**Metal Techniques for Small Scale Sculpture**

Metalsmithing techniques for functional and sculptural objects. Learn the physical properties of metal and create objects that express personal images and creative thoughts in metal sculpture, hollowware and model making. Includes field trips to metal fabrication studios.

**ART 290 (5) N**  
**The Art Business**

Fundamentals of the business aspects of art, including designing and packaging the portfolio for A.F.A./C.F.A. degrees, photographic artwork, building a resume, marketing, copyrights, contracts and other essential business practices. Recommended: At least two college-level art courses.

**ART 291 (2) C,N**  
**Art Seminar**

Readings and discussion in the philosophy and ideas of artists and art movements with criticism and analysis of works of art.

**ART 298 (3) C,S**  
**Special Problems in Film Media**

Advanced film production involves scripting, budgeting and scheduling. Emphasis on information film production, interior and studio lighting for color, sync-sound recording and editing techniques.

**ART 299 (1-5) C,N,S**  
**Special Problems in Art**

Individual or seminar instruction. May be repeated to earn a maximum of 9 credits. Prereq: Second year art major, level of ability and permission.

## ASTRONOMY

**ASTR& 100 (5) C,N,S**  
**Survey of Astronomy**

(Formerly AST 100) Emphasis on astronomic concepts fundamental to an understanding of the solar system, stars, galaxies and origin and history of the universe.

**ASTR& 110 (5) C,N,S**  
**The Solar System**

(Formerly AST 101) Survey of planets of the solar system with emphases on recent space exploration and the comparative evolution of the Earth and the other planets. Includes light optics, telescopes and the history and development of astronomy. Night observing sessions required as part of the lab. Prereq: MATH 098 or higher with 2.0 or permission. Recommended: test into ENGL& 101 or ENG 101 or higher.

**ASTR 201 (5) C,N,S**  
**The Universe & the Origin of Life**

Modern views of atomic and molecular evolution from the big bang theory through the formation of the solar system and emergence of life on earth. Discuss extraterrestrial intelligent life and the ultimate fate of the cosmos. Recommended: AST 100 or some science background.

## AUTO BODY COLLISION REPAIR

*NOTE: Courses ABR 111 through ABR 164 include instruction in safety, environmental awareness, human relations and work ethics.*

**ABR 111 (4) S**  
**Intro to Automotive Collision Technology**

Covers the skills needed to become a good body shop employee, typical movement of a vehicle through a body shop and basic procedures for repairing a collision damaged vehicle. Identify and use general purpose hand tools and power tools used in a body shop.

**ABR 112 (3) S**  
**Safety & Environmental Practices**

Covers various environmental and other regulations in an automotive refinishing department. Locate hazardous warning information for products used in refinishing, select the proper personal protection equipment, inspect it and demonstrate proper use.

**ABR 113 (8) S**  
**Welding & Cutting**

Covers the differences between various metal joining processes, selection of the correct heat joining for various jobs, the advantages of using MIG welding, personal and shop safety, along with vehicle protection measures. Learn about welding wires, shielding gases, tuning the welder. Be able to visually inspect and destructively test the weld.

**ABR 121 (4) S**  
**Panel Replacement & Alignment**

Covers selection, understanding and use of panel replacement and alignment tools. Prereq: ABR 111, 112 and 113 or permission.

**ABR 122 (3) S**  
**Working with Trim & Hardware**

Covers the proper use and selection of tools and removing and installing of interior door trim panels, door locks and handles, deck lid lock cylinders and exterior trim. Install pinstripes and decals. Prereq: ABR 111, 112 and 113 or permission.

**ABR 123 (4) S**  
**Metal Straightening**

Covers the basic fundamentals of metal straightening and proper selection of metal straightening tools. Prereq: ABR 111, 112 and 113 or permission.

**ABR 124 (4) S**  
**Body Fillers**

Covers the correct mixing and application of body fillers to increase the quality of the repair. Prereq: ABR 111, 112 and 113 or permission.

**ABR 131 (2) S**  
**Understanding Automotive Finishes**

Identify the differences between a variety of automotive finish systems, including dry time, chemical make-up and plant and body shop application. Prereq: ABR 111, 112 and 113 or permission.

**ABR 132 (6) S**  
**Preparing the Surface for Refinishing**

Determine the condition of a vehicle's finish and plan the steps used in refinishing the vehicle. Prereq: ABR 111, 112 and 113 or permission.

**ABR 133 (5) S**  
**Preparing the Equipment, Paint & Refinishing Materials**

Setup and use the final preparation, spray environment and drying areas for refinishing. Understand paint mixing formulas using reference manuals; mix paint according to published formulas; and describe the various types of air supply equipment and setup. Use various types of spray guns, make all preliminary adjustments to the air system and spray gun, test the spray gun and make final adjustments in preparation for refinishing. Prereq: ABR 111, 112 and 113 or permission.

**ABR 134 (1) S**  
**Detailing**

Covers proper cleaning of the exterior and interior of the vehicle, removal of overspray, decals and pinstripes. Prereq: ABR 111, 112 and 113 or permission.

**ABR 151 (2) S**  
**Metal Straightening I**

Learn the fundamentals of metal straightening and proper selection of metal straightening tools.

**ABR 152 (2) S**  
**Body Fillers**

Learn the correct mixing and application of body fillers that will increase the quality of the repair.

**ABR 153 (2) S**  
**Understanding Auto Finishes**

Learn to identify a variety of automotive finish systems, including dry time, chemical make-up and plant and body shop application.

**ABR 161 (5) S****Damage Analysis**

Covers how a vehicle absorbs the forces of a collision through "crush zones," how damage travels from the point of impact through the body, and the identification of two types of damage conditions. Prereq: ABR 111, 112 and 113 or permission.

**ABR 162 (3) S****Door Skin & Intrusion Beam Replacement**

Covers proper alignment of door frames, the principles and techniques for removing and replacing a welded door skin, door intrusion beam removal, surface preparation and installation techniques. Prereq: ABR 111, 112 and 113 or permission.

**ABR 163 (5) S****Quarter Panel Replacement**

Analyze quarter panel damage, determine whether sectioning or full panel replacement is required; learn the principles and techniques of removing a damaged quarter panel, surface preparation, alignment and installation. Prereq: ABR 111, 112 and 113 or permission.

**ABR 164 (2) S****Moveable Glass & Hardware**

Remove and install moveable door glass, identify cause and correct air and water leak problems. Prereq: ABR 111, 112 and 113 or permission.

**ABR 171 (7) S****Straightening Structural Parts**

Learn proper mounting and anchoring of the vehicle and various types of pulling equipment. Study H.S.S., cold and hot stress relief, pulling and straightening of front, rear end, side impact and roof damage. Prereq: ABR 111, 112 and 113 or permission.

**ABR 172 (7) S****Full & Partial Panel Replacement**

Understand full or partial panel replacement, uses of various types of joints used in sectioning, repair or replacement of a complete rail section, rocker panel, A and B pillar, floor pan, truck floor and full body section. Prereq: ABR 111, 112 and 113 or permission.

**ABR 173 (2) S****Restoring Corrosion Protection**

Covers safely working with chemicals, corrosion and its effect on vehicles and restoring corrosion protection to collision damaged areas. Students will plan effective and correct corrosion protection treatment to welded areas and exposed seams, interior seams, exposed surfaces, trim and accessories during repairs.

**ABR 181 (6) S****Steering & Suspension**

Covers identifying and diagnosing tire and wheel steering, rack and pinion steering, power steering suspension, strut type and problems in steering and suspension systems.

**ABR 182 (7) S****Electrical & Electronic Systems**

Learn to diagnose and repair electrical and mechanical systems problems.

**ABR 183 (3) S****Mechanical Systems**

Focuses on repairing a vehicle involved in a collision, often removing mechanical parts, including suspension, steering, drive train and engine parts and servicing of mechanical parts. Some areas require collision repair technicians to be certified to perform mechanical repairs.

**ABR 191 (4) S****Applying the Finish**

Prepare a surface for topcoat, apply primer-scaler, and apply single stage paint, base, clear-coat and tri-coat finishes. Prereq: ABR 131.

**ABR 192 (3) S****Blending Color**

Prepare a vehicle for a blend, blend single-stage, blend base coat, clear coat or tri-coat finishing. Prereq: ABR 131.

**ABR 193 (3) S****Solving Paint Application Problems**

Identify paint application problems caused by contamination, paint defects caused by spraying techniques and solve paint problems related to drying, curing of paint and those caused by improper preparation. Prereq: ABR 131.

**ABR 194 (3) S****Finish Defects, Causes & Cures**

Covers identifying paint film defects, causes and corrective methods, surface defects and corrective methods of repair. Prereq: ABR 131.

**ABR 197 (1-5) S****Internship I**

Provides instructional link between classroom and on the job experience; reinforces and documents on-the-job learning experiences; and provides opportunities for faculty and student interaction.

**ABR 299 (1-12) S****Special Topics in Automotive Collision Repair**

A special topics course for an individual or group in Automotive Collision Repair.

**AUTOMOTIVE TECHNOLOGY**

*Note: Courses include instruction in safety, environmental awareness, human relations and work ethics.*

**MVM 100 (4) S****Intro to Automotive Technology I**

Includes safety and MSDS; tools and equipment; looking for information; repair orders, repair manuals and parts and time estimating guides; component identification; component theory and fasteners; function and construction of each component; diagnosis and service procedures. Prereq: Basic math skills, at least 9th grade reading level or permission.

**MVM 102 (4) S****Intro to Automotive Technology II**

Includes vehicle inspection; lube, oil and filter; cooling system, belt and hose; heating and air conditioning system; driveshaft; manual and automatic transmission problems, as well as servicing vehicles by performing. Covers the function and construction of each component, and diagnosis and service procedures. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**MVM 298 (VARIABLE) S****Special Topics in Motor Vehicle Maintenance**

A special topics course on an individual or group study basis on topics in the field of motor vehicle maintenance.

**AUT 100 (4) S****Intro to Electricity**

Covers safety in the shop, basics of electricity from electron theory to Ohm's law. Also covers use of multimeters on the three types of circuits. Prereq: MVM 100 or equivalent.

**AUT 102 (4) S****Advanced Electrical Systems**

Covers understanding and using schematics. Includes battery, starting and charging system operation and testing. Prereq: AUT 100 or equivalent and MVM 100 or permission.



**AUT 104 (3) S****Automotive Electronics**

Covers electrical accessories on the vehicle including lighting, power windows, door locks, seats, windshield wipers and defogger. Prereq: MVM 100 or equivalent, AUT 100 and 102 or permission.

**AUT 106 (3) S****Basic Power Accessories**

Covers basic computer operation and applications on the vehicle, using scan tools to diagnose electronically controlled components and accessories. Prereq: MVM 100 or equivalent, AUT 100, 102 and 104 or permission.

**AUT 110 (3) S****Clutches, Drivelines & Half Shafts**

Covers basic principles involving clutches, drivelines and half shafts, including function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 112 (3) S****Manual Transaxles & Clutches**

Covers the basic principles involving manual transaxles, including function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, AUT 110, basic math skills, at least 9th grade reading level or permission.

**AUT 114 (3) S****Manual Transmissions, Transfer Cases & Drive Axles**

Covers basic principles involving manual transmissions, transfer cases and drive axles, including function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, AUT 110, basic math skills, at least 9th grade reading level or permission.

**AUT 116 (6) S****Air Conditioning & Heating**

Covers basic principles involved in air conditioning systems, function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 118 (4) S****Automatic Transmission Diagnosis & Service**

Covers band adjustment, T.V. linkage, shift linkage, neutral safety switches, flush coolers and cooler lines; repair of external transmission leaks; draining oil, replacing filters and fill transmission; removing, cleaning and replacing valve body; road test to test transmission for problems. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 120 (6) S****Advanced Automatic Transmission Service**

Covers removal and replacement of automatic transmissions and replacing bands, clutches, bushings and seals, to make the transmission serviceable. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 122 (4) S****Steering & Suspension**

Covers chassis design, materials, fasteners and safety; wheel bearings and service; steering and suspension system components. Covers how they work, diagnosis and service. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 124 (4) S****Tires & Wheel Alignment**

Covers chassis design, materials, fasteners and safety; tire and wheel service; inspection and diagnosis of suspension and steering components; and wheel alignment diagnosis and service. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 126 (3) S****Basic Brake Systems**

Intro to automotive brake systems. Covers operation, diagnosis and service of master cylinders, wheel cylinders, hydraulic valves, brake hoses and lines, drum brakes and parking brake components. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 127 (4) S****Advanced Brake Systems**

Covers operation, diagnosis and service of disc brakes, power brakes and ABS brake components. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

**AUT 128 (4) S****Automotive Engine Diagnose/Remove & Replace**

Covers diagnosing engines for compression. Prereq: MVM 100 or permission.

**AUT 130 (8) S****Automotive Engine Rebuild**

Covers engine disassembly, cleaning of engine parts, inspection and measuring of engine components, cylinder head rebuilding, overhauling engine blocks and reassembly of an automotive engine. Prereq: MVM 100 and AUT 128 or permission.

**AUT 132 (3) S****Automotive Welding**

Covers safety in welding and proficiency in: oxy-acetylene welding, oxy-acetylene brazing, oxy-acetylene cutting and MIG welding. Learn which type of welding process is used when joining various types of metals in different situations. Prereq: MVM 100 and 102 or permission.

**AUT 134 (3) S****Intro to Drivability**

Prepares students for the automotive technician field, specifically the drivability and troubleshooting of a specific problem within basic engine fundamentals. Includes instruction in safety, environmental awareness, human relations and leadership. Prereq: AUT 100 and MVM 100.

**AUT 136 (4) S****Minor Tune-Up Procedures**

Covers shop safety, basic mechanical engines, Ohm's law, physics laws that apply to the automobile, battery starting and charging systems as they apply to engine runability. Includes using and maintaining emission-related equipment in the shop. Prereq: MVM 100, AUT 100, 102, 104 and 106 or equivalent, or permission.

**AUT 138 (6) S****Advanced Drivability & Fuel Systems**

Covers gasoline fuel systems, including mechanical and electric fuel pumps, carburetors, throttle body and port fuel injection systems. Prereq: MVM 100, AUT 100, 102, 104, 106 and 136 or equivalent, or permission.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN . . . . . Watch Technology**

**NAME TO PREFIX**  
**Watch Technology . . . . . HIN**

**AUT 140 (4) S**  
**Engine Computers**

Covers automotive engine computer, its multiple power and ground supplies and how these affect the running of the vehicle. Includes inputs and outputs of the vehicle, how each contributes to the running of the engine and how to diagnose each one. Prereq: MVM 100, AUT 100, 102, 104, 106, 136 and 138 or equivalent, or permission.

**AUT 142 (6) S**  
**Emission Controls & Diagnostic Equipment**

Covers all emission-related items on the vehicle and the federally mandated OBD II system. Includes use and operation of super charges and turbo charges on cars. Prereq: MVM 100, AUT 100, 102, 104, 106, 136, 138 and 140 or equivalent, or permission.

**AUT 299 (2-18) S**  
**Special Topics - Automotive**

Special topics for individual or group study. Prereq: Permission.

## AVIATION MAINTENANCE TECHNOLOGY

**AMT 111 (17) S**  
**Basic Science for Aviation**

Provides a firm foundation for maintenance on both small and large aircraft. Covers aircraft terminology, mathematics, basic physics, aircraft drawing and interpretation of diagrams. Includes specifications and properties of modern aircraft materials, fabrication and their use, hardware, fitting, corrosion control, cleaning, proper use of tools, precision instruments required for maintenance and overhaul practices. Also covers nondestructive inspection, aircraft systems, components, ground handling and servicing procedures, Federal Aviation Regulations, maintenance records, publication, weight and balance control. Prereq: High School Completion/GED or equivalent.

**AMT 112 (17) S**  
**Basic Electricity for Aviation**

Introduces basic concepts of electricity and magnetism; the circuit properties of resistance, inductance and capacitance; methods of power generation for alternating and direct current systems and power utilization. Emphasis on principles and practical application, keeping mathematics to a minimum. Learn to repair and adjust generators, alternators, motors and control units, read schematics, fabricate and install complete circuits and troubleshoot and repair malfunctioning systems and components. Prereq: AMT 111 or permission.

**AMT 113 (17) S**  
**Airframe Structure & Repair**

Experience working with five types of aircraft structure materials: wood, fabric, composite/fiberglass, plastic and metal. Provides realistic exposure to approved airframe structural repair practices. Includes inspecting materials; installing common fasteners in composite and metal structures; forming, heat treating and fabricating metal structures; and intro to brazing, gas and arc welding of steel magnesium and titanium. Prereq: AMT 112 or permission.

**AMT 133 (17) S**  
**Powerplant Theory & Maintenance**

Covers theory, operation and maintenance of the internal combustion reciprocating engine, including dismantling, inspection, repair or replacement of parts and partial reassembly of an aircraft powerplant. Covers theory, operation and overhaul of gas turbine engines. Intro to current maintenance practices and inspection of the compressor, burner and turbine sections. Includes inspection, repair and servicing of aircraft internal combustion cooling, exhaust and induction systems used on reciprocating and gas turbine engines. Prereq: AMT 111 and 112 or permission.

**AMT 214 (17) S**  
**Airframe Systems**

Intro to five basic airframe systems and their components: hydraulic-pneumatic power, landing gear, ice and rain control, cabin environmental control and fuel systems and management. Prereq: AMT 113 or permission.

**AMT 215 (17) S**  
**Advanced Airframe**

Refines basic skills and concepts in addition to performing rigging and assembly, testing, evaluation of aircraft instrument systems, advanced electrical systems, communication and navigation systems and aircraft inspections for conformity and airworthiness in accordance with approved procedures. Prepare for the FAA Airframe exam. Prereq: AMT 113 and 214 or permission.

**AMT 234 (17) S**  
**Powerplant Systems & Components**

Covers six systems: engine fuel system and fuel metering system, carburetion and fuel injection; ignition system for reciprocating engines and turbine engines; turbine engine electrical starting systems; powerplant lubrication systems; electrical and mechanical indicating systems; and powerplant ice and rain control systems. Prereq: AMT 133 or permission.

**AMT 235 (17) S**  
**Advanced Powerplant**

Learn about aircraft propellers used with both small and large piston or turbo-prop engines. Includes engine fire detection and extinguishing, engine electrical systems and turbine engine pneumatic starting systems. Covers reciprocating and turbine engine test run and run-in and troubleshooting, powerplant inspection methods and techniques. Reviews carburetion, ignition, basic powerplants, lubrication, propellers, electrical systems and weight/balance control. Emphasis on FAA regulations, airworthiness safety, personal and technical ethics. Prereq: AMT 234 or permission.

**AMT 298 (12) S**  
**Special Topics: Aviation Maintenance**

Overview of various parts of the aircraft and their operation, including methods of corrosion detection, removal, treatment and correct painting techniques. Prereq: Permission.

**AMT 299 (5) S**  
**Special Topics: Maintenance for Aviation Professionals**

Basic aircraft maintenance on a variety of aircraft systems and components by arrangement.

**AFT 101 (5) S**  
**Private Pilot Ground School**

Provides comprehensive instruction in the basics of flight and aircraft operation. Intro to aerodynamic principles and their effects on aircraft operation. Includes flight safety and orientation to airports. Learn how to obtain and interpret weather reports, forecasts and charts. Prereq: Permission.

**AFT 110 (6) S**  
**Private Pilot Flight Instruction**

Covers training needed for the FAA Private Pilot Certificate allowing the transport of persons or property in aircraft without compensation or hire. Instruction in trainer type aircraft on the elements of flight, attitudes and ground tracks, takeoffs and landings, solo flight and maximum performance maneuvers. Includes cross-country flight with navigation and use of radio aids in preparation for the oral flight test for the Private Pilot certificate. Encompasses precise airplane altitude control by instrument reference and radio navigation. Prereq: Permission.

**AFT 130 (5) S**  
**Instrument Ground School**

Covers the principles of instrument flight, including aircraft control, flight instruments and instrument navigation using VOR, DME and ADF. Includes the air traffic control system; use of charts; regulations of instrument flight; IFR flight planning; departure, in-route, arrival and emergency procedures; and meteorological conditions. Prereq: Permission.

**AFT 210 (6) S**  
**Instrument Flight Instruction**

Covers flight and ground (simulator) training to qualify to add an Instrument Airplane rating to a Private Commercial Pilot certificate. Continues instruction in precise airplane altitude and flight management solely by reference to instruments; in-route navigation; Air Traffic Control procedures and regulations; instrument approach and missed approach procedures; holding patterns; and IFR cross-country flight. Prereq: Permission.

**AFT 230 (5) S**  
**Commercial Pilot Ground School**

Reviews airplane performance, VFR cross-country planning and navigation at the Commercial pilot level. Covers FARs, including Part 135, applicable to commercial pilot operations. Study advanced systems appropriate to complex airplanes and learn to execute the advanced flight maneuvers required for Commercial Pilot certification. Prereq: Permission.

**BAKING**

*See Hospitality/Food Production/Culinary Arts, page 219.*

**BIOLOGY**

**BIOL& 100 (5) C,N,S**  
**Survey of Biology**

(Formerly BIO 100 – Biological Principles) Intro to biological principles and concepts; cell biology; application of biological knowledge to problems of society; and development of an awareness of science. Lab included. For non-science majors. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BIOL 102 (5) C,N,S**  
**General Biology**

Emphasis on common plant and animal activities, energy pathways via respiration and photosynthesis and metabolic activities. Stresses other physiological differences between animals and plants. Lab included. Prereq: BIOL& 100 and 160.

**BIOL 103 (3) C**  
**Nutrition for Food Service Professionals**

Identification of the known nutrients for human health; demonstration of dietary quality guidelines; utilization of dietary guidelines in meal planning, including modification of existing recipes to meet nutritional recommendations.

**BIOL 106 (5) C**  
**Biotechnology & Society**

Intro for non-science majors to biotechnology and its impact on society. Includes cloning, DNA, antibodies, gene therapy, plant biotechnology, the human genome project, DNA fingerprinting, genetic testing, diverse products made through biotechnology and the ethical, legal and social implications of this technology. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BIOL 107 (5) C,N,S**  
**Intro to Comparative Animal Behavior**

Overview of current thinking and research in the science of animal behavior, including a brief history of the development of animal behavior as a science. Focuses on evolutionary principles and how they influence the behavior of animals. Discover how animals learn and how learning and instinct shape behavior. Explore how strategies employed by different species affect survival. Gain insight into human behavior from a new perspective and understand why and when sociality and apparent altruism can be advantageous to animals. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BIOL 120 (5) C,N,S**  
**Marine Biology**

Emphasis on natural history, ecology, distribution, habitat, adaptation, interrelationships of local species. Field trips and lab included. Prereq: High school biology or permission, eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BIOL 125 (5) N**  
**Biology of the Pacific Northwest**

Discover fundamental principles of biology and ecology through readings, experiments and field trips. This online course fulfills the lab science requirement.

**BIOL 128 (5) C,N,S**  
**Survey of Human Anatomy & Physiology**

(Formerly ANP 128) Basic organization of the body; functions and interactions of body parts; response of the body to the environment. Lab included. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BIOL 130 (5) N**  
**Northwest Ornithology**

Intro to biology and ecology of Northwest bird species through readings, experiments and local field study to sites throughout the Pacific Northwest.

**BIOL& 160 (5) C,N,S**  
**General Biology with Lab**

(Formerly BIO 101 - General Biology)  
**North:** Basic biological concepts with emphasis on general cell processes, plant and animal diversity, morphology, limited reproduction, phylogeny of the living organisms, exploration of molecular genetics. Lab fee.

**Central:** Survey of basic biological concepts with emphasis on biological molecules, cell structures and processes; diversity, phylogeny and ecology of living organisms; and an exploration of molecular genetics. Lab fee. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**South:** Basic biology concepts with emphasis on general cell processes, plant and animal diversity with morphology, limited reproduction, phylogeny of the living organisms and exploration of molecular genetics. Lab fee.

**BIOL 161 (5) C,N**  
**Human Genetics**

Intro to genetics. Covers fundamental principles, including Mendelian inheritance, sex determination, complex traits and behavioral genetics, gene structure and function, mutations and chromosome abnormalities, population genetics and evolution, the human genome and genetic technologies. Discusses current issues, including stem cells, cloning, genetic testing, genetically modified plants and animals, gene therapy, forensics and biotechnology. Includes lab. Fulfills the QSR requirement for A.A. degree. Prereq: CHEM& 139 (or passing score on placement exam) and MATH& 141 or 122 with 2.0 or higher and eligible for ENGL& 101 or ENG 101.

**BIOL 166 (5) C,N,S**  
**American Foodways**

(Formerly BIO 160) Explore the evolution of the North American diet and eating rituals through an historical perspective. Includes influences in supermarkets from the Native American population and immigrants from Europe, Asia, Africa, South America and the Pacific Islands. Covers the physiological and metabolic aspects of each culture's nutrition. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BIOL 195 (1) C**  
**Biotechnology Seminar I**

Overview of history, scope and career opportunities in biotechnology. Prereq: Concurrent enrollment in Biotechnology program. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BIOL 196 (1) C**  
**Biotechnology Seminar II**

For students in the last quarter of the Biotechnology program. Review and examination of FDA regulations, patenting, trademarks and copyright law. Prereq: Concurrent enrollment in Biotechnology program. Permission.

**BIOL 197 (2-5) C**  
**Cooperative Work Experience - Biology**

For biotechnology majors. Internship in laboratory work at a biotechnology company or research lab. Prereq: BIOL& 260 or BIO 280, CHEM& 123 or CHE 103, or permission.

**BIOL 198 (1-5) C,N**  
**Biology Workshop**

Problem-solving workshop approach to biology topics considered appropriate by the instructor and/or biology faculty. Additional topics may include study skills, note-taking systems, test-taking strategies and group problem-solving approaches. Prereq: Permission.

**BIOL& 211, 212, 213 (5 EA) C,N,S**  
**Majors Biology (Cellular, Animal, Plants)**

(Formerly BIO 201/202/203) A three-quarter intro to biology sequence in preparation for advanced study in areas such as medicine, dentistry, cell biology, microbiology, or veterinary medicine. BIOL& 211 focuses on cellular biology, BIOL& 212 on the biological diversity in animals and BIOL& 213 on evolution, ecology and biological principles of monera, fungi, protista and plants. Lab included.

**BIOL& 211 (5) C,N,S**  
**Majors Cellular**

(Formerly BIO 201) Initial course of series, focusing on cellular biology: cell structure, organization, metabolism, energetics, the gene and molecular, chromosomal, Mendelian and microbial genetics.

**BIOL& 212 (5) C,N,S**  
**Majors Animal**

(Formerly BIO 202) Continuation of series. Emphasis on the biological diversity of animals, general principles of animal physiology, growth and development. Prereq: BIOL& 211 or BIO 201. One quarter college chemistry (pref. inorganic series) or permission (C).

**BIOL& 213 (5) C,N,S**  
**Majors Plant**

(Formerly BIO 203) Final quarter in series.  
**North:** Intro to anatomy and morphology of seed plants, survey of the plant kingdom (bacteria through angiosperms including life histories, unique characteristics), survey of basic plant processes (photosynthesis, transport, hormonal controls, development and differentiation). Lab fee. Prereq: BIOL& 211 or BIO 201 with 2.0 or better.

**Central:** Emphasis on population genetics, evolutionary principles, diversity and phylogeny of living organisms, and ecology. Organisms surveyed include prokaryotes, fungi, protists and plants, with detailed exploration of anatomy, physiology, growth, and reproduction of terrestrial plants. Introduction to population, community and ecosystem-level ecological principles. Lab fee. Prereq: BIOL& 211 or BIO 201 with 2.0 or higher.

**South:** Emphasis on evolution, ecology and biological principles of algae, fungi and plants, including their physiology, anatomy, growth process and diversity. Lab fee. Prereq: BIOL& 212 or BIO 202 with 2.0 or better.

**BIOL& 241 (5) C,N,S**  
**Human Anatomy & Physiology I**

(Formerly ANP 213 - Anatomy & Physiology I) Covers fundamental principles and establishes a basis for advanced study of anatomy and physiology and clinically-related subjects in the paramedical fields. Lab. Prereq: BIOL& 160 or BIO 101 or CHEM& 121 or CHE 101.

**BIOL& 242 (5) C,N,S**  
**Human Anatomy & Physiology 2**

(Formerly ANP 214 - Anatomy & Physiology II) Continuation of BIOL& 241. Lab. Prereq: BIOL& 241 or ANP 213.



**BIOL& 260 (5) C,N,S**  
**Microbiology**

(Formerly BIO 280) History and methods of microbiology: microbial classification, metabolism, culture requirements, molecular genetics, viruses, antimicrobial methods and drugs, immunology, epidemiology and pathogenesis. Lab included. Prereq: Two college-level biology or chemistry lab courses, or permission.

**BIOL 282 (2) C**  
**Media & Solution Preparation**

For biotechnology and biology majors. Preparation of rich, defined, differential and selective media and a variety of chemical solutions with an emphasis on sterilization, aseptic technique and quality control. Lab included. Prereq: BIOL& 260 or BIO 280 and two quarters of chemistry.

**BIOL 285 (6) C**  
**Biotechnology I**

Covers lab experience with gene cloning, PCR, restriction mapping, DNA hybridization and other techniques involving recombinant DNA. Prereq: Concurrent enrollment in BIOL 282 and Biotechnology program.

**BIOL 286 (6) C**  
**Biotechnology II**

Covers protein analysis, protein purification, PCR, enzyme assays, ion-exchange chromatography, gel filtration chromatography and production of specific proteins. Prereq: BIOL 285.

**BIOL 287 (6) C**  
**Biotechnology III**

Emphasis on immunochemistry and tissue culture. Covers antibody purification, affinity chromatography, SDS-PAGE, Western blots, ELISAs, cell quantitation and growth of animal cells. Lab included. Prereq: BIOL 286.

**BIOL 290 (5) C,N**  
**General Genetics**

Intro to genetics for science majors. Mendelian inheritance, linkage and recombination, extensions of Mendel, sex determination, multifactorial traits, gene structure and function, mutations and chromosome abnormalities, population genetics, the human genome, genetic technologies, current applications (including cloning, genetic testing, genetically-modified plants and animals, gene therapy and forensics) and related ethical issues. Prereq: 10 credits of college-level biology or permission.

**BIOL 295 (5) C**  
**Immunology**

For biotechnology and biology majors. Natural and specific immunity. Aspects of humoral and cellular immunity including antibody structure and function, immunogenetics, development of hematopoietic cells, B and T cell function, antigen presentation, autoimmunity, cytokines and immunity to different types of disease. Non-lab course. Prereq: BIOL& 260 or BIO 280.

**BIOL 297 (1-5) C,N,S**  
**Special Topics in Anatomy & Physiology**

(Formerly ANP 298) Anatomy and/or Physiology seminar or activity.

**BIOL 298 (1-5) C,N,S**  
**Special Topics - Biology**

Seminar on selected topics or activities in the biological sciences. Prereq: Variable, dependent on topic.

**BIOL 299 (1-5) C,N,S**  
**Independent Study - Biology**

Independent study of approved topics in the biological sciences. Prereq: Permission.

**BOTANY****BOT 110 (5) C,N,S**  
**Plants & People**

Practical application relevant to everyday lives. Covers economic plants (grains, legumes, fruits), food values, plant parts, poisonous plants of urban areas, textiles and wood. Lab included. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**BOT 112 (5) C,N,S**  
**The Plant Kingdom**

**Central:** Intro to the diversity and life processes of plants. Emphasizes anatomy, physiology, growth, reproduction, evolution, ecology, diversity and other aspects of green algae and terrestrial plants. Lab fee. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**North:** Intro to botanical diversity, anatomy, morphology and evolution, including viruses, bacteria, fungi, algae and seed plants with emphasis on life histories and unique characters used in classification. Lab fee.

**South:** Intro to anatomy and morphology of seed plants, survey of the plant kingdom (bacteria through angiosperms), life histories, unique characteristics and survey of basic plant processes. Lab included.

**BOT 113 (5) C,N,S**  
**Plant Classification**

**Central:** Intro to classification and diversity of terrestrial plants. Emphasizes the use of fresh specimens, laboratory identification and drawing of the common plant families of the Pacific Northwest. One Saturday field trip. Lab fee. Prereq: Eligibility for MATH 084 and ENGL& 101 or ENG 101 (C).

**North:** Intro to the classification system used in identifying seed plants and characteristics of common conifers and flowering plants. Labs emphasize dichotomous keys in plant identification and collection techniques. Lab fee.

**South:** Intro to plant classification, field collection techniques, herbarium techniques and identification of plants through the use of technical keys. Emphasis on the plants of Washington and vascular plants. Lab included.

**BOT 299 (1-5) N**  
**Independent Study - Botany****BUSINESS**

*NOTE: It is recommended that students at North Seattle Community College see an advisor or counselor for prerequisites.*

**BUS 090 (2-5) C,S**  
**Foundation in Business Prep**

Offered as a two-quarter course listed as BUS 090a and 090b. Lecture/lab to develop competencies in office administration and computation. Includes keyboarding, intro to computers (Windows, Word) and intro to business communications. Prereq: ASSET test scores indicating basic English, reading/writing and math skills or permission.

**BUS 091 (2-17) C,S**  
**Foundation in Business Prep II**

Two-quarter course listed as BUS 091a and 091b. Continuation of BUS 090. Lecture/lab to develop competencies in office administration and computation. Includes keyboarding, computer software (Excel and Access) and intermediate/advanced business communications.

**BUS 100 (3) C**  
**Fundamentals of Supervision**

Basic course in first-line supervision, covering total responsibilities of a supervisor. Includes the function of management, human relations and motivation, effective communications, systems concepts and problem-solving.

**BUS& 101 (5) C,N,S****Intro to Business**

(Formerly BUS 101) Survey of American business in a global context: business and economic terminology, forms of business ownership, management, accounting, finance, international marketing and foreign exchange rates. Also covers small businesses, business start-ups and franchising.

**BUS 102 (3) C****Business Organization & Management**

Development of modern management: organization and operation, division of responsibility, line and staff organizations, executive leadership and management, business control and procedures and basic management problems.

**BUS 104 (3) C,S****Keyboarding**

Keyboarding using Word for students with little or no typing experience. Includes alpha/numeric keyboard and word processing of correspondence documents. May be taken for S/NC grade.

**BUS 105 (4) N****Keyboarding**

Beginning keyboarding taught on the computer. Intended for students with no keyboarding experience. Emphasizes touch keyboarding with speed and accuracy on alphabetic and number keys. Introduces basic word processing concepts and letter and memo formatting.

**BUS 106 (3) C,N,S****Keyboarding/Skillbuilding**

Development of speed and accuracy of letter, symbol and number keys through drills and timings. May be taken for S/NC or decimal grade and may be repeated for credit (N,S). Prereq: Keyboarding of 25 net wpm (C) - BUS 104 or BUS 105 (N).

**BUS 110 (5) S****Business Mathematics**

Mathematical processes and techniques currently used in business and finance: percentages, simple/compound interest, discounts, arithmetic of payroll, taxes, bank statements, reconciliation, trade and cash discounts, retail pricing, consumer credit, annuities, business and consumer loans. Prereq: Passing scores on ASSET (W&R=43, NS=40), SLEP (combined=61, NS=10), or permission.

**BUS 112 (5) C,N,S****Multicultural Issues in the American Workplace**

Intro to legal, racial and cultural aspects of the American multicultural workplace. Examines diversity, self-exploration as a basis for understanding others, historical overviews of ethnic influences on American business, workforce demographics and cross-cultural communication.

**BUS 113 (3) C,S****Diversity Issues in Business**

Intro to legal, gender, racial and cultural aspects of business. Examines diversity, self-exploration as a basis for understanding others, historical overviews of ethnic influences on American business, workforce demographics and cross-cultural communication.

**BUS 114 (5) N****Intro to Marketing**

Essential to survival in today's customer-driven business, marketing should demonstrate value, quality and service exceeding customer demands while maintaining channel relationships and meeting company goals and objectives. Prereq: Eligible for ENGL& 101 through English placement test or completion of ENGL 097/098.

**BUS 115 (2) N,S****Computational Skillbuilding**

Intro to basic operation of touch addition, subtraction, multiplication and division on the electronic printing calculator. Use of memory register and applications to solve business math problems. Enrollment may be for S/NC audit or decimal grade.

**BUS 116 (5) C,N,S****Business Math/Spreadsheets**

Use business math applications to work with checking accounts, percentages, invoices, discounts, payroll, insurance and other business applications. Use Excel software to create spreadsheets. Prereq: No math test required (N); placement at MATH 085 level on COMPASS test (C).

**BUS 117 (2) C,N****Records Management**

Learn the components of correct document and information management and the rules as established by the Association of Records Managers (ARMA) for correctly applying filing guidelines to manual, alphabetic, numeric, geographic and subject filing systems.

**BUS 118 (5) N****Project Management**

Overview project management from a business perspective, including project estimation, feasibility, planning, risk management, contingency planning, scheduling and control. Perform and complete a viability study including alternatives. Prereq: IT 101 or BUS 169; BUS 236.

**BUS 119 (3) N****Leadership & Management**

Learn to integrate people, projects and sponsors to complete tasks and deliverables on time. Covers effective leadership, leading vs. managing and styles of each. Includes responsibilities, team development and dynamics, personality types, influence without authority, conflict management, organizational and cultural influence on a project. Prereq: IT 101 or BUS 169; BUS 236.

**BUS 120 (5) S****Business Communications/ Writing Improvement II**

Develops business and accounting-specific occupational-technical vocabulary usage and pronunciation. Minimum score on ASSET test (reading 36, writing 39) or SLEP test (50) required for enrollment.

**BUS 121 (5) N,S****English Communications/ College Preparatory Writing III**

English grammar and terminology related to business English rules; emphasizes punctuation, rules in business communications, word usage and spelling. Prereq: Satisfactory English placement test score or completion of or concurrent enrollment in ENGL 093/094 (N); Passing score on ASSET test (S).

**BUS 123 (5) N****Word for Business**

Create and edit business documents such as letters, memos, reports, basic tables and charts, electronic forms, outlines, mail merges and column text. Learn to share work for comments, revisions and merging and integrate other Office applications. Recommended: Familiarity with computer usage or successful completion of BUS 169 or IT 101; ability to key 25 words per minute or successful completion of BUS 105.

**BUS 124 (3) N****Excel for Business**

Covers all fundamental techniques for creating worksheets, charts, databases and macros. Recommended: Familiarity with computer usage or successful completion of BUS 169 or IT 101.

**BUS 125 (3) N**  
**Access for Business**

Use Microsoft Access to design, create and edit tables, queries, forms and specialized reports. Manipulate data using specific criteria, queries and filters. Learn to import/export data among various applications software. Recommended: Familiarity with computer usage or successful completion of BUS 169 or IT 101.

**BUS 126 (2) N**  
**PowerPoint for Business**

Learn Microsoft PowerPoint to create visuals to accompany your business and personal presentations. Create, change, customize and save PowerPoint files. Add and manipulate graphics and apply appropriate design elements to presentations. Prereq: ENGL 097/098 placement or ENGL 095/096 completion.

**BUS 131 (5) C,N,S**  
**Integrated Communications I**

Integrates the review and refinement of basic English grammar, punctuation and word usage skills with the composition of effective basic business letters and memos. Intro to oral communication skills essential to successful giving/receiving of information and cultural aspects of the communication process. Prereq: Satisfactory English placement test score (N,C), ASSET: W&R=46, SLEP: combined=65, or BUS 121 with 2.0 or higher (S).

**BUS 132 (5) C,S**  
**Integrated Communications II**

Further develop communication skills integrating business English grammar, punctuation and word usage skills with composition of effective, complex business documents. Develop research, business report writing and documenting skills. Practice oral presentation techniques, handling of questions, problem-solving and conflict-resolution techniques. Complete meeting preparation tasks. Prereq: BUS 131 with 2.0 or higher.

**BUS 138 (3) S**  
**Leadership for Ground Service Companies**

Intro to leadership for SEA-TAC airport employees. Covers leadership styles and skills in various organizational settings. Includes developing productive teams, motivating employees, handling difficult people and situations, learning practical skills and the role and responsibilities of being a leader/supervisor within the company policy and procedures guidelines.

**BUS 139 (18) S**  
**Customer Service/Call Center Training**

A short-term program designed to provide skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within the company guidelines.

**BUS 140 (5) C,N,S**  
**Customer Relations**

Develops skills to identify and resolve customer complaints, handle difficult customers and utilize effective verbal and nonverbal communication methods. Learn appropriate professional use of various electronic media and contribute positively to the service culture of an organization. Examines future trends and changes in work environments.

**BUS 147 (5) N**  
**Intro to Legal Systems**

Learn the legal systems and basic legal forms. Become familiar with courts, their operational structure and the roles of bailiffs, clerks and other support offices. Learn how small claims, trial and appellate courts conduct proceedings and use forms (pleadings).

**BUS 151 (3) N**  
**Intro to Entrepreneurship**

Overview of the entrepreneurial process, examination of the marketplace and discussion of successful business strategies. Product selection, selling and marketing strategies. Sources of information and assistance.

**BUS 152 (5) N**  
**Entrepreneurship I**

Intro to product selection, channels of distribution, pricing, marketing and selling strategies. Write the product, pricing and marketing sections of a business plan. Prereq: BUS 151 and BUS 155.

**BUS 153 (5) N**  
**Entrepreneurship II**

Intro to financial planning, financing and operations processes. Review forecasting assumptions, prepare financial needs projections, study new business financing and prepare plans for growth and contingencies. Complete the business plan. Prereq: BUS 152 or instructor's permission.

**BUS 154 (5) N**  
**Exploring Entrepreneurship**

Overview of the entrepreneurial process. Develop a business plan using personal business idea. Learn skills and characteristics of successful entrepreneurs, techniques for evaluating business opportunities, planning tools, selling and marketing basics, financial analysis, record-keeping, regulations of Washington State and step-by-step procedures for starting a small business.

**BUS 155 (3) N**  
**Independent Study**

With the aid of coaching, develop a feasibility plan as the basis or start of your business plan.

**BUS 156 (5) N**  
**Intro to e-Business/Commerce**

Overview of the principles of electronic commerce: the origin and growth of e-commerce; comparison with traditional commerce; the relationship of e-commerce to the Internet; electronic money; electronic contracts, legal issues, stock trading; catalogs, accounting, auditing and taxation, international aspects and e-marketing. Prereq: ENGL& 101 or ENG 101 eligibility or completion of ENGL 097/098.

**BUS 169 (5) N,S**  
**Using Computers in Business I**

Focuses on representative business software for word processing, database, spreadsheet applications, graphic presentations and uses in business. Includes the basics of the disk operation system (DOS), Windows contemporary computer terminology and legal and safety considerations. Prereq: BUS 104 or CTN 100 (S) and keyboard skills.

**BUS 170 (4) C,S**  
**Information Technology I**

Intro to Word, Excel and computer concepts. Create, edit and insert graphics into various business documents. Create embedded charts using formulas and formats, What If Analysis and integration features. Covers web interactivity features. Prereq: BUS 104 or keyboard 25 wpm (C).

**BUS 171 (4) C**  
**Information Technology II**

Intro to Powerpoint and more advanced functions of Excel and Word, including Excel amortization schedules, hyperlinks and templates with multiples; and Word form letters, labels, documents with tables and integration using OLE and Word Art. Prereq: BUS 170 and keyboard 35 net wpm, or concurrent enrollment in BUS 106.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN** . . . . . **Watch Technology**  
**NAME TO PREFIX**  
**Watch Technology** . . . . . **HIN**

**BUS 172 (4) C**  
**Information Technology III**

Use technology to integrate text, data and charts in business projects. Covers advanced Word, PowerPoint and Excel functions; gain additional skill with email and Internet. Prereq: BUS 171 and keyboard 45 wpm or concurrent enrollment in BUS 106.

**BUS 175 (5) C,S**  
**Applied Business Statistics –  
 A Decision-Making Process**

Intro to concepts and techniques used extensively in public and private sector decision-making, including statistical techniques in accounting, finance, marketing, production and personnel management. Focuses on real data applications, active learning, quantitative privacy and statistical thinking, and using computer software. Prereq: BUS 110 or MATH 098 (S).

**BUS 177 (5) S**  
**Spreadsheets**

Study for Microsoft Office Specialist (MOS, formerly MOUS) Core Professional Certification exam for MS-Excel. Emphasis on using Excel software tools necessary to pass the core exam; however, passing the MOS exam is not required to pass the course. Certification exam is available at a reduced fee through the Testing Center at South. Prereq: BUS 169 or equivalent.

**BUS 178 (5) C**  
**Intro to Web Design/Development  
 with Dreamweaver**

Focuses on website design, concepts and processes necessary to develop, maintain and upload a commercial website to a worldwide web server through the use of Dreamweaver software. Covers design, color, graphics, sound and navigation. Prereq: Keyboard 25 net wpm plus BUS 170, MIC 101, or MIC 150.

**BUS 179 (5) S**  
**Word Processing**

Study for the Microsoft Office Specialist (MOS, formerly MOUS) Core Professional Certification exam for MS-Word. Emphasis on using the Word software tools necessary to pass the core exam; however, passing the MOS exam is not required to pass the course. Certification exam is available at a reduced fee through the Testing Center at South. Prereq: BUS 169 or equivalent.

**BUS 181 (5) C,S**  
**Intro to Desktop Publishing**

Creation of documents using desktop publishing software on the PC. Combines text-processing and graphics to create brochures, newsletters and other business materials using a popular software. Prereq: 25 net wpm and working knowledge of Word (C).

**BUS 182 (5) C,S**  
**Information & Database Management**

Study the basic alphabetic, numeric, subject and geographic filing principles necessary to manage filing systems. Includes computer practice using a database software simulation. Intro to Microsoft Access database features. Prereq: BUS 104 or equivalent.

**BUS 185 (5) C**  
**Small Business Management**

Covers qualifications needed by the small business manager and entrepreneur; planning, organizing and marketing activities; forecasting methods and sources of financial resources; tools for decision-making.

**BUS 197 (2-15) C,S**  
**Work Experience – Business**

Earn work experience in the business field. Prereq: Permission.

**BUS 200 (5) C,N,S**  
**Intro to Law**  
 (See POLS& 200)

**BUS& 201 (5) C,N,S**  
**Business Law**

(Formerly BUS 250) Covers nature, development and operation of principles of business law relating to contracts, commercial paper, corporations, agency, partnerships and sales.

**BUS 204 (5) N**  
**Office Procedures**

Intro to organization, planning and setting priorities. Covers mail handling, travel arrangements, composing and typing correspondence. Emphasis on leadership development. Prereq: BUS 131, BUS 270 and BUS 182 or concurrent enrollment.

**BUS 205 (5) N**  
**Human Resource Management**

(Formerly BUS 201) Analyzes basic functions of supervisory-level management with emphasis on skills needed to be an effective leader/manager of a diverse work force. Covers management functions of planning, organizing, directing, evaluating and skill development in effective communication, motivation, problem-solving, managing conflict and selecting employees.

**BUS 207 (5) N**  
**Intro to Legal Resources & Office Procedures**

Study the concepts of law and evidence; the different types of laws (constitutional, statutory, regulatory and case/common); how laws are made; how they impact one another; and which laws prevail in conflicts. Learn to access and use codes, reports, digests and find needed non-legal information. Covers operation of law firms and legal agencies. Prereq: BUS 147

**BUS 209 (3) N**  
**Producing Deliverables – Technical Writing**

Learn to create written deliverables. Includes writing a Request for Proposal, evaluating RFP responses, writing the Evaluation Report, creating different types of documentation and day-to-day written communication between teams, management and project sponsors. Prereq: IT 101 or BUS 169; BUS 236.

**BUS 210 (5) C,N,S**  
**Business & Economic Statistics**

Studies statistical methods and their application to business and economic data. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or 116.

**BUS 215 (5) C,N**  
**Intro to International Business**

Studies business operations, private enterprise and governmental relationships in a world environment, including investments, marketing, transportation, trade agreements, management, production decisions and financial analysis. Recommended: BUS& 101 or prior business experience.



**BUS 216 (5) C,N,S**  
**Professional Development**

Learn to develop positive mental attitudes and examine useful techniques for personal and professional success. Emphasizes various aspects of career development.

**BUS 229 (5) N**  
**Project Management Tools, Techniques & Control**

Define and sequence project tasks using MS Project. Develop and complete a project plan and budget that includes resource allocations, critical path, dependencies, estimating, risk management, contingency planning, implementation and evaluation. Prereq: IT 101 or BUS 169; and BUS 236.

**BUS 230 (5) N,S**  
**Business Communications**

Develop effective business writing skills through preparation of letters, reports, memoranda and employment documents. Emphasizes intercultural aspects of communication. Prereq: BUS 131. Recommended: BUS 104 or BUS 105 (N).

**BUS 235 (5) S**  
**Oral Communications in Business**

Covers listening, speaking, nonverbal communication, effective business meetings, parliamentary procedures, telephone and interview techniques. Prereq: BUS 131 or ENGL& 101 or ENG 101 with 2.0 or higher.

**BUS 236 (5) N**  
**Interpersonal Communications for the Workplace**

Learn interpersonal communication styles and effective ways to adapt communication to meet business needs. Improve understanding of cultural diversity, non-verbal communication and individual influences on communication. Includes techniques for making informal and formal business presentations and preparations for employment interviews.

**BUS 239 (5) S**  
**Integrating Office Applications**

Uses advanced features of MS-Word and MS-Excel to integrate text, data and graphics in the preparation of business projects. Prepares for the Microsoft Office Specialist (MOS, formerly MOUS) Expert Professional Certification exams for MS-Word and MS-Excel; however, passing the MOS exams is not required to pass the course. Certification exam is available at a reduced fee through the Testing Center at South. Prereq: BUS 170, 177 and 179.

**BUS 240 (5) C,N**  
**Internet Law**

Explores legal issues and topics directly related to the World Wide Web: copyright, trademark and servicemark rights; privacy; contractual issues surrounding work-product, website development and licensing agreements; employment issues including discrimination and monitoring of employee email; censorship; domain name registration; defamation or cyberslander; misuse of the Internet and liability issues. Provides an overview of the basics of constitutional law, contracts, torts, regulatory, criminal law and personal law.

**BUS 245 (5) N**  
**Global Marketing**

Examine the many facets of global marketing and its impact on the global consumer in an era of unmatched consumer awareness and heightened cultural identity.

**BUS 249 (3) N**  
**Real World Project Management Experience**

Work on a "real world" project in a medical, construction, aerospace, or other organization that employs Project Managers. Contact Career Services within 2 weeks of start of quarter and develop a resume and cover letter. Prereq: BUS 118, 119, 209 and 229.

**BUS 253 (5) S**  
**Managing for Organizational Effectiveness**

Study organizational behavior and theory. Learn how managers can improve organizational effectiveness by attending to the human side of the enterprise. Examine leadership, motivation, power, politics and organizational design and their effects on performance.

**BUS 255 (5) N**  
**Business Ethics**

Addresses the fundamental questions of ethical and moral behavior in corporate boardrooms and company meeting rooms, in organizations large and small. Examines corporate culture, corporate governance, stakeholder responsibility, social responsibility and the importance of business ethics in a global economy.

**BUS 260 (5) C**  
**Applied Business Economics**

Emphasis on small business formation, planning and financial management. Analysis of economic factors affecting decisions made by small business owners. Prereq: ENGL& 101 or ENG 101, ENGL& 102 or ENG 102 and MATH 098 or permission.

**BUS 270 (5) N**  
**Using Computers in Business III**

Develop skills to manage projects effectively using advanced MS Office features and to select the right application to do the job. Using advanced word processing, spreadsheet and database functions, master report generation, mail merge, desktop publishing, importing data and graphics, macros, forms preparation, newsletters and file management. Build Internet and email skills. Prereq: Permission.

**BUS 275 (5) N**  
**Business Finance & Economics**

Covers bank credit, commercial credit, issuance of stocks and bonds, retained earnings financing and operation of stock markets through projects relating to on-the-job experiences. Prereq: ACCT& 201 or ACC 210 and BUS& 101 or BUS 101.

**BUS 298 (1-5) S,C**  
**Special Topics – Business**

Prereq: Permission.

**BUS 299 (1-5) C**  
**Special Topics – Business**

Individual or group study projects on topics in the field of business. Prereq: Permission.

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**BUSINESS COMPUTERS**

*See SVI Network Technician program, pages 166–167.*

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**CHEMICAL DEPENDENCY**

*See Social and Human Services, page 290.*

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**CHEMISTRY**

**CHEM& 105 (5) C,N,S**  
**Chemistry Concepts**

(Formerly CHE 100 – Chemistry & Society) Stresses a humanistic approach to chemistry and de-emphasizes mathematical problem-solving. Reveals chemical principles, facts and theories through practical applications, computer graphic illustrations and experiments. Includes lab.

**CHEM 106 (5) N,S****Intro to Food Science**

(Formerly CHE 105) Studies the biological and chemical consequences of food preparation. Lectures and lab explore questions such as why cut potatoes turn brown, why starch thickens sauces and why bread rises.

**CHEM& 121 (5) C,N****Intro to Chemistry**

(Formerly CHE 101 - Chemistry [S] or Fundamentals of Inorganic Chemistry [N,C]) Fundamental inorganic chemistry, including bonding, stoichiometry, gas laws and acid/base topics. Of particular interest to Health Science and Biotechnology students. Lab included. Prereq: One year of high school algebra or MATH 085.

**CHEM& 122 (5) C,N,S****Intro to Organic Chemistry**

(Formerly CHE 102 - Fundamentals of Organic Chemistry [N,C] or Chemistry [S]) Continuation of organic chemistry and intro to biochemistry. Lab included. Prereq: CHEM& 121 or CHE 101.

**CHEM& 123 (5) C,N,S****Intro to Biochemistry**

(Formerly CHE 103 - Fundamentals of Biochemistry [N,C] or Biochemistry [S]) Explores the role of biochemistry in modern society. Covers functional groups, carbohydrates, amino acids, lipids, nucleic acids, steroids, genetics and pharmaceuticals. Lab included. Prereq: CHEM& 122 or CHE 102.

**CHEM& 139 (5) C,N,S****General Chemistry Prep**

(Formerly CHE 139 - Intro to General Chemistry) Lecture. Includes chemical mathematics, basic atomic structure, chemical bonding, chemical equation balancing, mole concept and chemical stoichiometry. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098.

**CHEM& 161 (6) C,N,S****General Chemistry with Lab I**

(Formerly CHE 140) For science majors. A three-quarter sequence introducing basic concepts of chemistry: structure and bonding, chemical reactivity, physical measurement, stoichiometry, structure of matter, gas laws, intermolecular forces, solutions, chemical kinetics, equilibrium, acid/base, thermodynamics, redox and electrochemistry. Fulfills the QSR requirement for A.A. degree. Satisfies the general chemistry requirement for science majors and various pre-professional programs. Several pre-engineering and other programs require only CHEM&161 and 162 or CHE 140 and 150. Prereq: CHEM& 139 (or passing grade on placement exam) and MATH& 141 or 122 with 2.0 or higher.

**CHEM& 162 (6) C,N,S****General Chemistry with Lab II**

(Formerly CHE 150) For science majors. Covers chemistry principles, structure of matter, atomic and molecular theory, the elements, quantitative relationships, nuclear chemistry, aqueous solutions, kinetics, chemical thermodynamics, oxidation and reduction, electro-chemistry, periodicity, equilibrium systems, qualitative analysis and organic chemistry. Fulfills the QSR requirement for A.A. degree. Prereq: CHEM& 161 or CHE 140 or CHE 191.

**CHEM& 163 (6) C,N,S****General Chemistry with Lab III**

(Formerly CHE 160) For science majors. Covers chemistry principles, structure of matter, atomic and molecular theory, the elements, quantitative relationships, nuclear chemistry, aqueous solutions, kinetics, chemical thermodynamics, oxidation and reduction, electro-chemistry, periodicity, equilibrium systems, qualitative analysis and organic chemistry. Fulfills the QSR requirement for A.A. degree. Prereq: CHEM& 162 or CHE 150.

**CHEM 191, 192 (9 EA.) N****General Chemistry (two-quarter sequence)**

CHEM 191 and 192 are equivalent to CHEM& 161, 162 and 163 (formerly CHE 140, 150 and 160). Explores the principles of chemistry, structure of matter, atomic and molecular theory, the elements, periodicity, quantitative relationships, nuclear chemistry, aqueous solutions, oxidation and reductions. Both courses fulfill QSR requirement for A.A. degree. CHEM 191 Prereq: CHEM& 139 or CHE 139 or passing score on chemistry placement exam and MATH 102 or MATH& 141 or MAT 122. CHEM 192 Prereq: CHEM& 162 or CHE 150 or CHE 191.

**CHEM 211 (5) C****Quantitative Analysis for Biotechnology**

Theories, principles and methods of gravimetric, volumetric and instrumental analysis. Lab included. Prereq: CHEM& 123 or CHE 103.

**CHEM& 241 (4) C,N,S****Organic Chemistry I**

(Formerly CHE 231) Structure, nomenclature, reactions and synthesis of the main types of organic compounds. Prereq: CHEM& 163 or CHE 160.

**CHEM& 242 (4) C,N,S****Organic Chemistry II**

(Formerly CHE 235) Further discussion of physical properties and transformations of organic molecules, especially aromatic and carbonyl compounds. Prereq: CHEM& 241 or CHE 231.

**CHEM& 243 (4) C,N,S****Organic Chemistry III**

(Formerly CHE 236) Polyfunctional compounds and natural products, lipids, carbohydrates, amino acids, proteins and nucleic acids. Prereq: CHEM& 242 or CHE 235.

**CHEM& 251 (3) C,N,S****Organic Chemistry Lab I**

(Formerly CHE 238) Preparation of representative compounds. Prereq: CHEM& 241 or CHE 231 or concurrent enrollment.

**CHEM& 252 (3) C,N,S****Organic Chemistry Lab II**

(Formerly CHE 239) Preparations and qualitative organic analysis. Prereq: CHEM& 242 or CHE 235 or concurrent enrollment and CHEM& 251 or CHE 238.

**CHEM 255 (3) N****Biotechnology**

First of two courses (second course now being developed). Survey of basic principles of biochemistry and molecular biology, emphasizing chemical events in living systems in terms of metabolism and structure-function relationships of biologically important molecules. For chemistry, biochemistry, medicine, dentistry, pharmacy or medical technology majors.

**CHEM 298 (1-5) C,N,S****Special Topics - Chemistry**

Seminar of selected topics and/or activity in the chemical sciences. Prereq: Variable, dependent on topic.

**CHEM 299 (1-5) C,N,S**  
**Independent Study - Chemistry**  
 Independent study of approved topics in the chemical sciences. Prereq: CHEM& 163 or CHE 160 and permission.

## CHILD & FAMILY STUDIES

**CFS 110 (3) C**  
**Planning Age-Appropriate Activities & Environments for Young Children**

Intro to working with children and their families to design safe, healthy, inviting, culturally relevant and anti-bias learning environments for children and family members. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 120 (3) C**  
**Supporting Young Children's Physical & Intellectual Development**

Examines physical, cognitive, creative and linguistic developmental needs and stages of children birth through 12, and methods and strategies for planning for holistic development. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 130 (3) C**  
**Guiding & Supporting Young Children's Social & Emotional Development**

Covers the social, emotional, self-esteem and cultural identity developmental needs and stages of children birth through 12, and methods and strategies for planning for holistic development. Addresses guidance and managing difficult behavior. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 145 (3) C**  
**Activities that Foster Development During the School-Age Years**

Examines physical, social, emotional, cognitive and moral development of school-age children (ages 5-14) within social and cultural contexts including the family, peer group and community. Covers individual differences, typical issues and areas of concern. Includes roles of practitioners and history and philosophies of various program models. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 155 (3) C**  
**Development During the Adolescent Years**

Examines early, middle and late adolescent (ages 12-21) development within social and cultural contexts including family, peer group and community. Explores issues youth face, youth culture and values, cultural responses to coming of age and rites of passage. Includes roles of practitioners and history and philosophy of various program models. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 180 (3) C**  
**Guiding Behavior & Social Development During the School-Age & Adolescent Years**

Examines theories of social-emotional development (ages 5-18), learning styles and application to diverse guidance strategies. Explores self-esteem, group belonging, cultural identity and diverse familial patterns. Examines both typical development and challenges youth face which may affect their development and behaviors. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 208 (3) C**  
**Planning Activities & Spaces for School-Age & Youth Programs**

Theoretical and practical examination of successful, diverse, culturally relevant and anti-bias environments. Includes facility design, appropriate materials, family involvement, programming and activities. Applicable to recreation, tutoring, health, education, social services, cultural arts and before/after school environments. Includes on-site visits to programs. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 215 (3) C**  
**Mathematics & Science Methods for Working With Young Children**

Overview of strategies for incorporating science and math curriculums and multimedia technology into school-age and youth programs. Emphasis on promoting youth cognitive development and future career opportunities, family involvement and overcoming traditional biases, which have been barriers for girls and people of color in science, math and technology learning. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 223 (2) C**  
**Physical Development in School-Age & Youth Programs**

Explores strategies and methods for incorporating cooperative games, sports, dance, creative movement and leadership development into youth programs. Examines and expands movement repertoire, coaching and mentoring skills and culturally diverse approaches. Prereq: Eligibility for ENGL& 101 and MATH 085.

**CFS 225 (3) C**  
**Assessment/Programming**

Covers assessing the needs of a particular child, family, agency, or community, then developing a program addressing these needs. Use of Portfolio Assessment. Gain understanding of how the needs identified relate to a larger societal context. Covers Participatory Action Research as a model (AACCTF) for assessing needs, as well as culturally relevant assessing and programming. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 228 (3) C**  
**Childhood/Adolescent Sexuality & Education**

Explores biological sexual development and culturally specific responses to myths and misinformation common among children, youth and families. Covers strategies for incorporating accurate, culturally sensitive information with families and their school-age children and youth. Explores issues of sexual identity: gender roles, heterosexuality and homosexuality, sexual stereotypes and the impact of the media. Examines responses to teen pregnancy and sexual abuse. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 245 (3) C**  
**Building Partnerships with Diverse Families**

Focuses on strategies, conceptual frameworks and culturally relevant approaches to parent education and support. Explores methods of building partnerships with parents. Emphasis on cultural relevancy and anti-bias strategies for parents and issues facing urban families. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 252 (3) C**  
**Violence Prevention & Community Development with Children, Youth & Families**

Examines the nature of violence in our community, including institutionalized violence, media violence, domestic violence and gangs. Covers impact of prevention programs, strategies, curriculums and methods for community building and empowerment. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 263 (3) C****Working with Children with Disabilities**

Focuses on the social, emotional, physical, legal, historical and environmental issues which may affect children and youth with disabilities and their families.

**CFS 270 (3) C****Child & Family Health**

Includes impacts of environmental stresses and toxins, access to health care, preventative health, safety issues in childhood, violence in society, childcare issues, nutrition, bias and other issues impacting families. Focuses on ways families, agencies and communities can work together to resolve these issues. Meets Washington state requirements for HIV/AIDS training, CPR/First Aid and Children's Health and Immunization recordkeeping. Prereq: Eligibility for ENGL& 101 & MATH 084.

**CFS 280 (3) C****Methods for Cultural Relevancy & Anti-Bias – Strategies for Children & Families**

Specific strategies for working with both European-American families and families of color and the impact of racial, cultural, homophobic, gender, age and economic class bias on children and families. Covers teaching children to resist bias and understand and deal with rejection. Prereq: HUM 105 and Eligibility for ENGL& 101 and MATH 084.

**CFS 284 (3) C****Literacy Development for Children & Their Families**

Covers practical strategies for early, continued and adult literacy development. Covers models of family literacy and literacy development for children who are non-native English speakers. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 290 (1-4) C****Budget & Finance for Non-Profits**

Covers budget design and monitoring; money, credit and financial statements; bookkeeping and financial planning; taxes and other legal requirements; computer applications; fees and other revenue sources; grant writing and fund raising; the budget/quality link. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 296 (1-4) C****Personnel & Supervision**

Examines staff development, evaluations and training, developing cohesive teams, communication, conflict management and group dynamics. Studies recruitment, hiring and retention, developing personnel systems and procedures, performance contracts, motivation of staff, and wages and benefits. Prereq: Eligibility for ENGL& 101 and MATH 084.

**CFS 299 (2) C****S.T.A.R.S. Seminar**

Meets the new 20-hour requirement and learning outcomes for Washington State Training and Registry System (S.T.A.R.S.). Covers child growth and development, child guidance, health and safety, and professionalism based on the Adult-Size Guide to Child-Sized Environments, the Child Care Licensing Handbook.

**COMMUNICATION****CMST& 101 (5) C,N,S****Intro to Communication**

(Formerly CMN 105 – Perspectives on Communication) Intro to communication as a transactional process, with attention to personal, cultural, group and public communication. Covers verbal and nonverbal messages, listening, self-concept and perception. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST& 102 (5) C,S****Intro to Mass Media**

(Formerly JRN 100) History and impact of the mass media from hieroglyphics through print, advertising, radio, TV, movies and the Internet. Critically read media "texts" and analyze the effects on individuals and cultures. Prereq: ENGL& 101 or ENG 101 placement.

**CMST 115 (5) C,N,S****Overcoming Communication Anxiety**

For individuals who have apprehension or nervousness about giving presentations and working with others. Apply emerging social and scientific research on self-esteem, assertiveness and cross-cultural awareness to their own communication perceptions, expectations and proficiencies. Recommended for domestic as well as immigrant and international students. Prereq: Placement into ENGL 095/096 or higher; or permission.

**CMST 145 (5) C,N,S****Gender & Family Communication**

Theoretical and practical perspectives on the complex, lifelong relationships among and between females and males. Similarities and differences in gender and culturally based communication and behavior in a variety of contexts and situations, particularly within the family. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST 155 (5) C,N,S****Argumentation & Public Debate**

Concepts and strategies of rhetorical persuasion, integrated with procedures and practice in generating, presenting and arguing ideas and issues within a public forum. Emphasizes audience research, thorough preparation and the development of appropriate agendas, information and policies for eventual group and/or public dialogue and decision-making. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST 175 (5) C,N,S****Oral Interpretation**

Interpretation as an artistic process of studying literature and other texts through individual and group performance with an audience. Analyze and perform various texts in their aesthetic, intellectual and emotional entirety. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST 185 (3-5) C,N,S****Organizational Communication**

Identification, practice and evaluation of communication styles and skills to achieve individual and organizational goals within corporate and non-profit cultures and settings. Practical professional orientation. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST 195 (5) N****Media Management & Operations**

Explores accepted theories, alternative perspectives and actual practices of organizational communication, administration and decision-making within media institutions. Covers internal and external participants, problems, solutions and choice opportunities shaping corporate and non-profit behavior, performance and change. Prereq: Placement into ENGL& 101 or ENG 101.



**CMST 205 (5) C,N,S**  
**Multicultural Communication**

Study concepts of culture and the opportunities and challenges of multicultural communication in domestic settings. Focuses on the importance of culture in all human interaction; the variables which affect intercultural communication, including ethnicity, gender and multicultural identities; and the influences of American culture around the world. Prereq: ENGL& 101 or ENG 101.

**CMST& 210 (5) C,N,S**  
**Interpersonal Communication**

(Formerly CMN 125) Covers principles and processes of human communication, including observations and applications, personal and cultural contexts, nonverbal and verbal interactions, multiple intelligence, perception, models and definitions. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST 215 (3-5) N,S**  
**International Communication & Relations**

Psychological and social dynamics of human interaction at the international level. Includes a variety of local and global issues, with attention to interpersonal ethics, political philosophies, economic policies and communication systems. Prereq: ENGL& 101 or ENG 101.

**CMST& 220 (5) C,N,S**  
**Public Speaking**

(Formerly CMN 135 - Effective Communications) Covers the process of getting started with confidence; topic selection and research; preparation and delivery of informative, persuasive, special occasion and other forms of presentations. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST& 230 (5) C,N,S**  
**Small Group Communication**

(Formerly CMN 165) Experience in and analysis of communication within groups, emphasizing the value of interdependent thoughts and efforts, active listening and empathizing, cooperative roles and tasks, power and conflict management, and collaborative decision-making and problem-solving. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST 235 (5) N**  
**Media Research, Marketing & Sales**

Overview of the needs, opportunities and methods for measuring phenomena in human and media communication, specifically applied to integrated marketing and sales promotion. Includes objectives, designs and processes of inquiry; variables and measures in communication; measuring instruments and problems in sampling; and statistical analyses of data. Prereq: MATH& 146 or BUS 210 and ENGL& 101 or ENG 101.

**CMST 245 (5) N,S**  
**Media Communication & Criticism**

Contemporary perspectives on the transformation of human interaction through media-based communication. Evaluates the content of modern criticism within the context of the cultural and economic marketplace of ideas and values. Prereq: ENGL& 101 or ENG 101.

**CMST 255 (3-5) N,S**  
**Writing for Organizations & the Media**

Basics of writing effectively for organizations, print and electronic media. Communication strategies, formats and media used by individuals within organizations to convey messages to internal and external audiences. Create individual writing portfolios. Prereq: ENGL& 101 or ENG 101.

**CMST 265 (5) N**  
**Media Relations & Ethics**

Covers current trends in and ethical issues about, the generation, maintenance and dissemination of effective communications which define and promote corporate and non-profit media organizations. Study their relationships with internal cultures and external communities, including investors, shareholders, clients, analysts, government organizations, other media and consumers. Prereq: ENGL& 101 or ENG 101, ENGL& 102 or ENG 102 or BUS 131, CMN 195.

**CMST 275 (3-5) N,S**  
**Online Communication**

Survey of communication issues and applications emerging from the ongoing development and use of digitized media. Focus on functioning effectively within the frontier environment of cyberspace. Write and prepare material for digital formats. Prereq: ENGL& 101 or ENG 101, ENGL& 102 or ENG 102; or permission; access to the Internet; and basic email and word processing skills.

**CMST 285 (5) C,N,S**  
**Current Topics in Communication**

Timely, multidisciplinary approaches to interpersonal, group, organizational, intercultural and media communication. Prereq: ENGL& 101 or ENG 101, ENGL& 102 or ENG 102; or permission.

**CMST 290 (5) N**  
**Media Project Management Practicum**

Learn guidelines for managing client accounts and techniques for coordinating media productions. Emphasizes critical thinking, problem-solving, managerial and creative skills in professional situations and media formats. Prereq: Placement into ENGL& 101 or ENG 101.

**CMST 291 (5) N**  
**Internet & Print Practicum**

Integrate scholarly and professional analyses of Internet and print media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating online and print media productions. Increase critical thinking, problem-solving, managerial and creative skills with online and print material. Prereq: BUS 229 or CMN 130, ENGL& 101 or ENG 101.

**CMST 292 (5) N**  
**Radio & Audio Practicum**

Integrate scholarly and professional analyses of radio and other audio media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating aural media productions. Increase critical thinking, problem-solving, managerial and creative skills with aural material.

**CMST 293 (5) N**  
**Television & Video Practicum**

Integrate scholarly and professional analyses of television and other video media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating visual media productions. Increase critical thinking, problem-solving, managerial and creative skills with visual material.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**CMST 294 (5) N**  
**News & Public Information Practicum**

Integrate scholarly and professional analyses of news and public information media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating informational media productions. Increase critical thinking, problem-solving, managerial and creative skills for developing and presenting informational material.

**CMST 295 (1-5) C,N,S**  
**Studies & Works in Communication**

Analytical study or creative work in Communication. Prereq: ENGL& 101 or ENG 101, ENGL& 102 or ENG 102, an approved learning contract/proposal and permission.

**CMST 298 (1-5) C,N,S**  
**Special Projects - Communication**

Special projects in Communication.

**CMST 299 (1-5) C,N,S**  
**Studies & Works in Communication**

Special projects in Communication.

**COMPUTER INFORMATION SYSTEMS**

*See Computing Technology, Information Technology and Network Technologies.*

**COMPUTER SCIENCE**
**CSC 100 (5) S**  
**Beginning Computers**

Covers basic computer terminology; characteristics of hardware and software; capabilities, limitations and problems associated with computers; intro to email and the Internet.

**CSC 102 (1-5) C,N**  
**Using Computers – Modules**

Covers computer topics chosen by the instructor and/or division. Topics may supplement content in another course (word processing for English, graphics for math or spreadsheets for economics). Class format varies. Prereq: Permission.

**CSC 110 (5) C,N,S**  
**Intro to Computer Programming**

Overview of computer program design and problem-solving with a focus on problem analysis, program development, testing and debugging. Use decision and loop structures to develop a variety of programs to solve scientific and technical problems. Programming language used may vary. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or MATH 106.

**CSC 111 (5) C,N,S**  
**Computers for Math & Science**

Learn to electronically find, share and access scientific information on the Internet and use applications to collect, analyze and present data. Create a website, handle email, compress and archive files and write simple programs. Includes hardware, software, networks and privacy. Prereq: MATH 098.

**CSC 142 (5) C,N,S**  
**Computer Programming for Engineers**

Covers the general principles of modern programming, including how to design, implement, document, test and debug computer programs. Based on Java. Covers objects, messages, expressions, statements, methods, classes, conditionals, iterations, arrays and collections. Fulfills QSR requirement for A.A. degree. Prereq: CSC 110 and MATH& 141 or MAT 122. May be taken as ENGR 142.

**CSC 143 (5) C,N**  
**Computer Programming II**

Continuation of CSC 142. Covers classes and interfaces, inheritance, graphics, exceptions, stream I/O, recursion, analysis of algorithms and some dynamic structures (lists, stacks, trees). Intro to advanced Java language features and new programming topics. Learn the tools for building efficient software systems: dynamic data allocation, recursion and analysis of algorithms. Fulfills QSR requirement for A.A. degree. Prereq: CSC 142.

**CSC 180 (3) C,N**  
**Scientific Computing & Bioinformatics**

Intro to computer applications used in biotechnology. Focuses on storing, manipulating, processing, graphing and analyzing scientific data. Includes computers as research tools for obtaining scientific information. Prereq: MIC 101. Recommended: CHEM& 123 or CHE 103.

**CSC 198 (1-5) N**  
**Computer Workshop**

Covers computer topics considered appropriate by the instructor and/or division. May be supplemental to another course.

**CSC 298 (1-5) C,N**  
**Special Topics**

A seminar of selected topics or activities in computer science. Prereq: Variable, dependent on topic.

**CSC 299 (1-5) C,N**  
**Independent Study**

Independent study of approved topics in computer science. Prereq: Permission.

**COMPUTING TECHNOLOGY**

*Also see Information Technology and Network Technologies.*

**CTN 101 (5) S**  
**Intro to Computing Technology**

Learn the common hardware components of computing systems, including the technical knowledge to make decisions about hardware selection, configuration, and upgrading for software optimization. Covers basic network topologies and management schema.

**CTN 104 (5) S**  
**Technical Applications of Spreadsheets**

Intro to electronic spreadsheets and software (Excel). Emphasizes concepts and commands necessary to create a spreadsheet, such as entering, saving and printing data and understand types of problems. Prereq: CSC 100.

**CTN 120 (5) S**  
**Databases I**

Overview of database concepts and applications. Emphasis on MS-Access and its role in Microsoft Office. Includes practical experience setting up related database systems and developing tables, queries, forms and reports. Prereq: CSC 100.

**CTN 121 (5) S**  
**Databases II**

Continuation of CTN 120 with emphasis on application development using Access automation tools. Intro to SQL server (with an emphasis on writing SQL statements), and the development of applications that use Access front-ends linked to SQL server back-ends. Prereq: CSC 120 and CTN 131.

**CTN 131 (5) S**  
**Intro to Computer Programming**

For those with little or no programming experience. Emphasizes programming in a structured, modular language with emphasis on program design and style using Visual Basic Net. Understand and define a problem, use various control structures, and learn modular program design and structural concepts. Prereq: CSC 100 or equivalent.

**CTN 141 (5) S**  
**Intro to Operating Systems**

Intro to operating systems' purpose, functions and structure. Use the command line for troubleshooting and configuration and for writing batch files. Study structures and management concepts that are common to all operating systems. Uses Windows OS. Prereq: CSC 100.

**CTN 142 (5) S**  
**Operating Systems II**

Study the implementation and administration of the most recent Microsoft Windows operating system to help students prepare for the Microsoft Certified Professional (MCP) exams. Focus on general operating systems' architectural concepts including file, memory, I/O, and process management methods. Learn Unix and Windows operating systems' intrinsic structure and functionality. Prereq: Successful completion of CTN 101.

**CTN 143 (5) S**  
**Operating Systems III**

Intro to the Linux operating system including features and distributions, the X Window System, user commands, installation, administration, basic networking and shells. Helps prepare the student for the CompTIA Linux+ certification exam. Prereq: CTN 142 with C- or higher.

**CTN 160 (5) S**  
**Web Production I**

Intro to internet media development using xhtml, cascading style sheets, tables, frames, forms, and css-p. Deploy and test sites on a web browser. Prereq: CSC 100 or permission.

**CTN 161 (5) S**  
**Web Production II**

Intro to web development using streamlined development tools and image editors. Integrate graphics and complex code to produce professional quality web sites. Uses Macromedia Dreamweaver, Adobe Photoshop or current industry standards. Prereq: CTN 160 or permission.

**CTN 162 (5) S**  
**Web Production III**

Advanced HTML course. Incorporate JavaScript to enhance interactivity and functionality in website development. Includes variables, functions, objects and events, data types and operators, and debugging JavaScript. Prereq: CTN 161 and CTN 131 or permission.

**CTN 163 (5) S**  
**ASP.NET I**

Intro to web applications and web services using the Microsoft.NET development platform. Includes programming in the VB.NET language, the .NET Common Language Runtime, NET Framework classes, ADO.NET, ASP.NET and XML. Study application architecture and design, the architecture of .NET, and practical issues such as debugging, deployment, security, scalability, performance and availability. Prereq: CTN 231 or permission.

**CTN 164 (5) S**  
**Multimedia Art I**

Develop animated content using Macromedia Flash. Includes drawing tools, animation techniques, working with the timeline, basic action scripting, incorporating audio, and delivery and publishing methods. Also offered as ART 216. Prereq: CTN 160 with a 2.0 or higher.

**CTN 165 (5) S**  
**Usability Design**

Use coding and graphics to produce new generation web sites. Focuses on combining design, usability testing and technology. Explore usability testing at the start of the technology project and carry usability through the development cycle. Analyze results and change the interface of a project to reflect testing results. Prereq: CTN 160 and ART 210 with a C+ or higher.

**CTN 166 (5) S**  
**Video Art I**

Focuses on the art of digital video editing and shooting using Adobe Premiere. Explore in-depth digital video editing, effects, transitions, graphics animation, sound and music integration, selecting format, basic DVD authoring and distribution strategies and options. Create a finished digital video film. Also offered as ART 166. Prereq: ART 210 and CTN 160.

**CTN 167 (5) S**  
**Animation on the Web**

Create simple, digitally animated objects and text using techniques and tools including non-moving animation, path animation, cell animation and time-based animation. Covers compression, optimization and methods of web publishing. Prereq: CTN 162 or permission.

**CTN 168 (3) S**  
**Graphics for the Web I**

Emphasizes web graphics preparation in Adobe Photoshop and ImageReady. Includes solutions for cross browser and platform graphic development, optimizing images for faster download, Photoshop tricks, tips and techniques within the application to streamline workflow. Prereq: CTN 160 and ART 210 or permission.

**CTN 169 (3) S**  
**Graphics for the Web II**

Emphasizes web graphics preparation using Adobe Illustrator and Macromedia Flashworks. Includes solutions for cross browser and platform graphic development, optimizing images for faster download, digital drawing techniques, typography and logo/icon development. Prereq: CTN 161 and CTN 168 with 2.0 or higher or permission.

**CTN 170 (5) S**  
**PC Hardware I**

Covers computer hardware repair and service, including primary peripherals, installation of software and hardware designs for Windows operating systems recognition. Learn safe and wise work habits, customer interaction techniques, reference materials and basic linear thinking methods of troubleshooting. Includes choices, installation, configuration and economic guidelines for "repair or replacement" decisions. Prereq: CSC 100, CTN 101 or equivalent.

**CTN 171 (5) S**  
**PC Hardware II**

Focus on the A+ certification prep for hardware and software technologies. Covers knowledge and hands-on competency in core hardware and operating system technologies including installation, configuration, diagnosing and preventive maintenance. Includes customer interaction techniques and systematic approaches to troubleshooting. Prereq: CTN 170 with C or higher.

**CTN 172 (5) S**  
**PC Hardware III**

Study advanced installation, configurations, troubleshooting, preventive maintenance, peripheral devices, network devices, upgrade and repair of IBM and IBM-compatible computers. Emphasizes professional development, customer relations, technical work experience and problem-solving. Uses the A+ OS Technologies Examination Blueprint. Prereq: CTN 171.

**CTN 175 (2) S**  
**Web-Related Careers: An Overview**

Overview of different roles and career paths in the web design industry. Includes website development, web software development, web server administration, web database implementation and maintenance, website design and interactive writer. Prereq: CTN 160 or permission.

**CTN 197 (1-15) S**  
**Computing Internships**

Bridges the gap between work and learning by reinforcing and documenting student learning experiences on the job.

**CTN 201 (1) S**  
**Streamlining Web Development**

Intro to web development editors. Streamline workflow and gain experience with industry standard tools. Prereq: CTN 161 or permission.

**CTN 202 (5) S**  
**Web Scripting**

Covers concepts, standards and technologies of web programming and scripting. Covers Common-Gateway Interface (CGI) Programming including use of Server-side Scripting for web development. Includes advanced JavaScript, DHTML and streamlining large-scale site production through scripting. Prereq: CTN 162 and CTN 231 or permission.

**CTN 204 (5) S**  
**ASP.NET II**

Covers intro to web services and advanced web application development and web service using the Microsoft.NET development platform, including programming in VB.NET language, .NET Common Language Runtime, .NET framework classes, ADO.NET, ASP.NET, and XML. Study the application architecture and design, the architecture of >NET and debugging, deployment, security, scalability and performance. Prereq: CTN 163 (CTN 265 and/or CTN 131 helpful).

**CTN 205 (5) S**  
**Multimedia Art II**

Increase skills in individual multimedia design and interaction scripting using Macromedia Flash for complex animation, advanced design and action scripting for increased interactivity. Includes event/event handler logic, creating variables, setting values and creating animation and effects for video. Also offered as ART 217. Prereq: CTN 164 or ART 216.

**CTN 206 (5) S**  
**ASP.NET III**

Continuation of CTN 204. Advanced projects based on ASP.NET techniques. Covers optimizing performance through data caching techniques, extensibilizing the ASP.NET environment through the use of HTTP Modules, using object-oriented techniques to quicken development, working with various authentication protocols and authoring server controls. Prereq: CTN 204 or permission.

**CTN 224 (5) S**  
**Web Server Configuration & Management**

Focuses on building, maintaining, and optimizing web servers. Includes security, user management, and authentication and access tracking. Prereq: CTN 160 or 270 or permission.

**CTN 231 (5) S**  
**Net Programming I**

Intro to Visual Programming in the Windows environment and to event-driven and object-oriented programming using Microsoft's Visual Basic .NET language. Includes general Visual Basic.NET syntax and control usage, single and multiple form applications, reading and writing from disc, and object-oriented design strategies and techniques. Prereq: CTN 131 or permission.

**CTN 250 (5) S**  
**NET Programming II**

Continuation of CTN 231. Expands understanding of the NET Framework. Includes multiple document interfaces, creation objects, basic database connectivity using ADO.NET.

**CTN 260 (5) S**  
**Visual Basic.NET III – Object-Oriented Programming**

Deepen understanding of objects and the variety of ways they can be created and manipulated within the Visual Basic environment. Explores object-oriented programming techniques using student-created objects.

**CTN 266 (5) S**  
**SQL Server Administration**

Continuation of CTN 265. Explores issues and techniques of programming and simple administration of SQL Server.

**CTN 267 (5) S**  
**XML I**

Comprehensive intro to the XML specification and accompanying standards. Covers the basics of XML syntax, DTDs and an overview of XML schemas, XSL transformations, XML namespaces and an intro to XHTML. Prereq: CTN 131 and 160 or permission.

**CTN 269 (5) S**  
**Capstone**

Prepare to enter the workplace. Develop comprehensive portfolios of work including digital resumes and cover letters. Work in teams to explore the roles in web development and produce a comprehensive small real world project. Explore job search and interviewing skills. Prereq: CTN 162 and CMN 275.

**CTN 270 (5) S**  
**Local Area Networks I**

Intro to networking concepts, terminology and technologies including history, OSI reference model, standards, common protocols, data translation techniques, data transmission processes and network structures. Includes error handling, communication hardware and popular network operation systems. Prereq: CSC 100. Recommended: CTN 101.



**CTN 272 (5) S**  
**Local Area Networks II**

Intro to the Novell NetWare family of network operating systems. Install Novell NetWare on student file servers, and configure the network operating system by creating users and groups, directory structures, login scripts, print services, security policies and performing server maintenance. Install and configure client operating systems and connect clients to file servers. Prereq: CTN 270.

**CTN 274 (5) S**  
**Local Area Networks III**

Covers advanced topics in computer networking, including remotely installing operating systems, implementing network security, setting up directory services, designing and implementing policies, setting up and implementing print services and configuring distributed file systems. Prereq: CTN 272.

**CTN 277 (5) S**  
**Network Security I**

Intro to the concepts and practices used to guard organizational data and computer systems. Select and deploy practical and effective solutions used to identify, assess and prevent external network threats. Covers Microsoft, Novell and Linux operating systems for server security, firewall security and remote access solutions. Prereq: CTN 270.

**CTN 278 (5) S**  
**Wireless Communication I**

Intro to wireless communication and wireless LAN technologies. Covers WLAN use, design, installation, security and troubleshooting. Studies the 802.11 standards including WiFi, light-based and radio-based WLANs, Bluetooth and cellular technology concepts. Learn how and why wireless communication works and how to select and setup the correct wireless devices for the best network solution. Prereq: CTN 270 or equivalent.

**CTN 279 (5) S**  
**TCP/IP**

Examines the TCP/IP protocol stack in detail. Includes TCP/IP protocol services, data formats, DNS, DHCP, IP network management, security basics for TCP/IP environments and IPv6 & SMTP. Prerequisites: CTN 142 and 282.

**CTN 282 (5) S**  
**Cisco I**

CCNA 1: First of 4-course official Cisco training program curriculum. Prepares students for Certified Cisco Associate (CCNA) certification exam. Covers networking technology, devices, addressing, media, protocols, design, regulations and standards, LAN, WAN, OSI models, cabling, cabling tools, routers, router programming, star topology, IP addressing and network management. Prereq: CTN 270.

**CTN 283 (5) S**  
**Cisco II**

CCNA 2: Routers and Routing Basics. Second of 4CCNA courses. Focuses on initial router configuration, Cisco IOS Software management, routing protocol configuration, TCP/IP and access control lists (ACLs). Learn to configure a router, managing Cisco IOS Software, configuring routing protocol on routers and set the access lists to control the access to routers. Prerequisites: CTN 282 with C or higher and pass Cisco's CCNA 2 finals.

**CTN 284 (5) S**  
**Cisco III**

CCNA 3: Switching Basics and Intermediate Routing. Third of 4 CCNA courses. Focuses on advanced IP addressing techniques VLSM, intermediate routing protocols (RIP v2, single-area OSPF, EIGRP), command-line interface configuration of switches, Ethernet switching, VLANs, Spanning Tree Protocol (STP) and VLAN Trunking Protocol (VTP). Apply lessons from CCNA 1 and 2 to a network and explain how and why a particular strategy is employed. Prerequisites: CTN 283 with C or higher and pass Cisco Semester II finals.

**CTN 285 (5) S**  
**Cisco IV**

CCNA 4: WAN Technologies. Last of 4 courses leading to the CCNA designation. Focuses on advanced IP addressing techniques: NAT, PAT and DHCP, WAN technology and terminology, PPP, ISDN, DDR, Frame Relay and network management and intro to optical networking. Apply previous CCNA learning to a network and explain how and why a particular strategy is employed. Prepare to take the CCNA Exam. Prereq: CTN 284 with C or higher and pass Cisco CCNA 3 finals.

**CTN 295 (5) S**  
**Help Desk, Research & Customer Service**

Learn effective customer service and help desk techniques and methods to conduct research necessary to solve technical problems efficiently. Emphasizes customer interaction and soft skills. Accomplish, document, evaluate, and present research to the customer. Study help desk techniques and infrastructure. Prereq: CSC 100 or equivalent. Recommended: at least one hardware, operating system, programming or networking class.

**CTN 298 (1-10) S**  
**Special Topics in Industrial Computing Technology**

Special topics in individual or group study in the Computing Technology field. Prereq: Permission.

**CTN 299 (1-5) S**  
**Special Topics in Industrial Computing Technology**

Accommodates individuals who wish to learn new skills or to update specific skills by creating an agreement or contract with the college. Prereq: Permission.

**ICT 103 (2) S**  
**Computer Applications**

Intro to popular applications software. Hands-on experience with a word processor, spreadsheet, database manager and MS-DOS.

**COOPERATIVE WORK EXPERIENCE****CWE 101 (2) N**  
**Portfolio, Job Search & Interviewing**

Develop effective cover letters, resumes, portfolios, job search strategies, interviewing techniques and conduct an informational interview. Videotape and critique a mock interview. Apply skills to job seeking and to transferring to other schools. Prereq: ENGL 095/096 or higher or COMPASS placement into ENGL 097/098 or permission.

**CWE 110 (3) N**  
**Internship**

Apply skills and training in the workplace in a field related to student's studies. Use current related employment, develop an opportunity or apply through the Internship Office. Develop learning objectives, complete performance evaluations on the job and develop a capstone portfolio. Prereq: CWE 101 with a 2.0 or higher or permission.

**CWE 197 (1-8) C**  
**Cooperative Education**  
 Earn credit for work or internship experiences.

## COORDINATED STUDIES PROGRAMS/LEARNING COMMUNITIES

*Learning Communities study a major theme from a variety of academic disciplines. A team of faculty and students use critical thinking to study important issues and concerns for the entire quarter. Students enroll for the entire program. Each program is taught by a team of diverse faculty members who conduct lectures and lead student seminars, field trips and group projects.*

*In Learning Communities, students and faculty work together on local and global issues requiring creative and active participation from all those in the classroom.*

*Though separate courses are listed on a student's transcript, the program is conducted as one coordinated course and each program becomes a unique sum, greater than the total of the parts.*

*This innovative approach to teaching and learning has won national recognition for the Seattle Community College District. The sense of community and excitement generated by Learning Communities creates an atmosphere that is especially memorable and profound.*

*For further information, students should contact the Advising Center at their campus and check the quarterly class schedule.*

## CULINARY ARTS

*See Hospitality/Food Production/Culinary Arts, page 219.*

## DENTAL ASSISTING

*See Dental Assisting Program at SVI, page 164.*

## DENTAL HYGIENE

*Admission to the Dental Hygiene Program and successful completion of all prerequisite coursework with a 2.5 grade or higher are required.*

*NOTE: Use of computers integrated into all DHY courses.*

### DHY 100 (3) C

#### Fundamentals of Dental Hygiene I

Examines the theory and scientific principles underlying the assessment, planning and implementation of clinical procedures in dental hygiene. Focuses on the scope of practice in Washington state, legal and ethical principles that govern the profession and professionalism. Learn effective communication, infection control, instrumentation, vital signs assessment, screening examinations, documentation and use of computers.

### DHY 101 (3) C

#### Clinical Dental Hygiene I

First in a series of supervised clinical and pre-clinical experiences involving the assessment, planning and implementation of patient care and clinical dental hygiene.

### DHY 102 (2) C

#### Health Promotion

Explores the process of health-related behavioral change through planned interventions in patient education and health promotion. Emphasizes theories of change, the effect of cultural norms and values in client-provider interaction and communication skills to assess the patient's perceptions, needs and motivation to change.

### DHY 103 (4) C

#### Dental Radiology

Study of radiation hygiene and the fundamentals of radiology relevant to dentistry. Includes demos and practice in exposing, processing and interpreting intra-oral radiographs. Covers principles and rules for patient and operator safety.

### DHY 104 (2) C

#### Preventive Dentistry

Study of dental deposits, dental diseases, causes and prevention including the relationship between plaque and oral disease processes, dental caries and gingivitis. Includes use and methods of researching professional literature and using oral health prevention measures such as patient education, self-care, fluoride and physiotherapies.

### DHY 105 (5) C

#### Oral Biology

Study of oral histology, including the microscopic structures and organization of tissues of the teeth, the embryologic development of the primary and secondary dentitions and the development of the oral cavity. Covers general pathology, including the mechanisms and characteristics of disease and disease process.

### DHY 107 (3) C

#### Pharmacology

Learn the general pharmacological and therapeutic actions of drugs with emphasis on those used in dentistry. Includes dosage, routes of administration, drug interactions, drug effects on the oral cavity, indications, contra-indications and factors in patient treatment planning.

### DHY 108 (2) C

#### Periodontology I

Learn the periodontal structures of the mouth and periodontal instrumentation, including types of instruments, names, setups and their proper application to periodontal therapy and treatment. Covers techniques for providing periodontal therapy, using adjunctive periodontal therapeutic agents, patient selection, treatment and post-treatment evaluation.

### DHY 109 (3) C

#### Human Pathophysiology

Study of human pathology including the etiology, predisposing factors, mechanisms of disease and characteristics of the disease process in each body system. Emphasizes specific disease entities that are most commonly seen in the clinical dental hygiene setting or that may influence an individual's dental care.

### DHY 110 (4) C

#### Head & Neck Anatomy

Study the anatomy and function of the head and neck. Learn the location, characteristics and function of the hard and soft tissues of the head, neck and oral cavity, including all anatomic features, the circulatory system, muscular system, cranial nerves and teeth.

### DHY 113 (1) C

#### Dental Radiology II

Continue study of radiation hygiene and radiology relevant to dentistry. Includes laboratory demos and practice in exposing, processing and interpreting intra-oral radiographs and extra-oral techniques.

**DHY 114 (3) C**  
**Restorative Practice & Materials I**

First of six-course sequence in clinical restorative dentistry. Focuses on the chemical, physical and mechanical properties of dental materials commonly used by hygienists and on their manipulation. Learn to place restorations into prepared cavities.

**DHY 117 (1) C**  
**Emergency Management**

Intro to the role of the dental team in the treatment of medical emergencies, prevention of medical emergencies, patient assessment, stress minimization, emergency drugs and equipment. Participate in class simulations of emergency treatment.

**DHY 118 (4) C**  
**Pain Control & Anesthesia for Dental Hygienists**

Covers theory and practice of pain control in dental hygiene and restorative dentistry, including nitrous oxide administration, topical anesthesia and nerve block, field and infiltration as local anesthesia applications.

**DHY 119 (3) C**  
**Restorative Practice & Materials II**

Second of six-course sequence in clinical restorative dentistry. Deepen learning of chemical, physical and mechanical properties of dental materials, their manipulation and placing restorations into prepared cavities.

**DHY 120 (2) C**  
**Fundamentals of Dental Hygiene II**

Examines the theory and scientific principles underlying the assessment, planning and implementation of clinical procedures in dental hygiene. Focuses on the initial assessment of the patient, charting, indices, disease assessment, treatment planning and assessing special cases involving abuse and neglect and use of computers.

**DHY 121 (4) C**  
**Clinical Dental Hygiene II**

Second in a series of seven courses. Continue learning assessment and evaluation of the patient, planning and implementing dental hygiene care and instrument techniques.

**DHY 122 (2) C**  
**Oral Pathology**

Study lesions, pathologies and abnormal conditions of the head, neck and oral cavity.

**DHY 130 (2) C**  
**Fundamentals of Dental Hygiene III**

Examines the scientific principles underlying the assessment, planning and implementation of clinical procedures. Focuses on the selection of detection and scaling instruments, selection and use of ultrasonic instruments, use and application of desensitization agents, custom trays, margination, area-specific curets, periodontal files, Nabors probe and tooth whitening. Covers risk assessment, presentation and written case documentation in development of individualized treatment plans for clinic patients.

**DHY 131 (4) C**  
**Clinical Dental Hygiene III**

Third in a series of supervised clinical experiences with patient care involving assessment, planning and implementation of clinical procedures.

**DHY 150 (2) C**  
**Supported Learning in Dental Hygiene Theory & Practice**

Individualized study in dental hygiene theory and/or practice personalized to meet the needs of dental assistants who have graduated from an accredited program and are making the transition into dental hygiene.

**DHY 200 (2) C**  
**Fundamentals of Dental Hygiene IV**

Fourth in a series focusing on the scientific principles underlying the assessment, planning and implementation of clinical procedures. Emphasizes biochemistry of food, nutritional counseling in dental hygiene practice and personal, professional and community issues related to HIV/AIDS.

**DHY 201 (8) C**  
**Clinical Dental Hygiene IV**

Fourth in a series of supervised clinical experiences with patient care involving the assessment, planning and implementation of clinical procedures.

**DHY 203 (2) C**  
**Ethics & Jurisprudence**

Focuses on the ethical, legal and regulatory issues facing a dental hygienist in a private dental office, community agency or independent practice. Through simulated cases, consider professional traits, theories of moral development, ethical dilemmas and principles, the Washington State Dental Practice Act, the hygienist-patient relationship and risk management in dental hygiene practice.

**DHY 208 (2) C**  
**Periodontology II**

Deepen study of periodontal diseases, including prevention, cause, prevalence, recognition, patient education, advanced treatment planning and appropriate treatment. Apply prevention and treatment techniques to patients with moderate to severe disease.

**DHY 215 (2) C**  
**Selective Populations**

Study the specific care modifications required to effectively deliver oral health services to patients with special mental, emotional and physical challenges or medical problems such as salivary dysfunctions, neurological impairments, immune system dysfunctions, cancer treatments and surgery.

**DHY 217 (2) C**  
**Community Rotations**

Clinic rotations to existing community dental clinics servicing low-income patients, non-English speaking clients, pedodontic and adolescent patients, and special needs populations.

**DHY 220 (2) C**  
**Fundamentals of Dental Hygiene V**

Fifth in a series focusing on the scientific principles underlying the assessment, planning and implementation of clinical procedures. Emphasizes higher level concepts needed for successful board certification and national examinations.

**DHY 221 (8) C**  
**Clinical Dental Hygiene V**

Fifth in a series of supervised clinical experiences with patient care involving the assessment, planning and implementation of clinical procedures. Provide care to a broader range of clients in clinic. Emphasizes refining and integrating previously learned concepts and skills into an effective pattern of comprehensive case management. Demonstrate clinical judgment and decision-making based on scientific evidence and treatment outcomes.

**DHY 222 (1) C**  
**Community Health I**

First of three courses in public and community health approaches to the prevention and management of dental and oral health needs. Emphasizes identification of community dental health programs with experience in schools, nursing homes, community centers and hospitals.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**DHY 223 (3) C**  
**Community Health II**

Study community dental health program planning and development focusing on prevention of dental disease and practice through learning projects. Develop a community outreach program and execute it.

**DHY 224 (2) C**  
**Community Health III**

Covers community dental health program planning and development focusing on prevention of disease. Integrates concepts and techniques regarding the selection and delivery of oral health services and education to underserved populations. Emphasizes program implementation and evaluation.

**DHY 230 (2) C**  
**Fundamentals of Dental Hygiene VI**

Explores the scientific principles underlying the clinical practice of dental hygiene. Develop high-level skills to enhance patient assessment, management and treatment.

**DHY 231 (8) C**  
**Clinical Dental Hygiene VI**

Sixth in a series of supervised clinical experiences with patient care involving the assessment, planning and implementation of clinical procedures.

**DHY 233 (2) C**  
**Restorative Practice & Materials III**

Third laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins in the laboratory and patients in the clinic. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington law.

**DHY 234 (2) C**  
**Restorative Practice & Materials IV**

Fourth laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins and patients. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington state law.

**DHY 235 (2) C**  
**Restorative Practice & Materials V**

Fifth laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins and patients. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington state law.

**DHY 236 (2) C**  
**Restorative Practice & Materials VI**

Final laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins and patients. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington state law.

**DHY 238 (1) C**  
**Professional Issues**

Covers the practice of dental hygiene including resume development, interviewing techniques, patient scheduling systems, employment contracts, dental staff relations, understanding the business aspects of a dental practice, and development of a personal philosophy of practice.

**DHY 240 (2) C**  
**Fundamentals of Dental Hygiene VII**

Focuses on the scientific principles underlying clinical practice dental hygiene. Focuses on inter-professional relations, team-building, sharing new knowledge and the responsibilities of a practicing dental hygienist for professional development and lifelong learning.

**DHY 241 (8) C**  
**Clinical Dental Hygiene VII**

Seventh in a series of supervised clinical experiences with patient care involving the assessment, planning and implementation of clinical procedures in dental hygiene.

**DHY 245, 246, 247, 248, 249, 250, 251 (1-5) C****Applied Practice in Dental Hygiene**

Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

**DHY 298 (1-5) C**  
**Special Projects in Dental Hygiene**

Individualized study in dental hygiene related subject matter arranged to meet the needs of students with specific levels of skills and background.

**DIESEL TECHNOLOGY**

*NOTE: These courses include instruction in safety, environmental awareness, human relations and leadership.*

**HDM 101 (3) S**  
**Intro to Heavy Duty**

Covers the basics of hand tools, power tools, safety, measuring instruments, repair orders, lubrication and some of the specialized tools used in the heavy-duty industry.

**HDM 102 (6) S**  
**Electrical-Electronics, Basic**

Covers safety procedures when working with electricity and fundamental electrical theory. Includes types of circuits, Ohm's law, use of common test equipment and reading wiring diagrams. Prereq: HDM 101 or permission.

**HDM 103 (3) S**  
**Intro to Truck & Trailer Maintenance**

Includes training on material safety data sheets (MSDS) and the identification of tools and their uses. Includes how to work safely with tools and equipment in a repair shop. Prereq: Permission.

**HDM 104 (6) S**  
**Batteries, Generators & Alternators**

Diagnose and repair charging systems commonly used in heavy-duty truck and equipment maintenance. Prereq: HDM 102.

**HDM 105 (4) S**  
**Truck & Trailer Preventive Maintenance**

Covers preventative maintenance including inspection of trucks and trailers, service of vehicles and changing oil and lubing, according to manufacturers' specifications for problem prevention. Prereq: HMD 103.



**HDM 106 (5) S**  
**Cranking & Lighting Systems**

Covers theory, operation and repair of starter motors commonly used in the industry, including control devices and wiring used with these motors. Covers troubleshooting and the use of common test equipment. Includes knowledge of truck equipment lighting systems and the hardware to control them. Prereq: HDM 102.

**HDM 107 (9) S**  
**Hydraulics & Pneumatics**

Covers theory, basic operation principles, design, function, testing and repair of selected types of hydraulic and air pumps, motors, hoses and accessories used on mobile equipment, as well as application and repair of pressure, flow and directional control valves and actuators. Prereq: HDM 101 or permission.

**HDM 109 (4) S**  
**Truck & Trailer Repair**

Covers how to make minor repairs to trucks and trailers, change tires, repair tires and adjust wheel bearings to manufacturers' specifications. Prereq: HDM 105.

**HDM 113 (6) S**  
**Basic Welding & Cutting – Diesel & Equipment Technician**

Intro to SMAC (shielded metal arc welding), oxyacetylene and carbon arc skills involved in the repair and maintenance of heavy-duty trucks and construction equipment. Perform several pertinent tasks and projects contained in an industry-approved competency-based learning module. Prior knowledge of hand and basic power tools is helpful. Prereq: Enrollment in Diesel and Heavy-Duty Equipment Technology Program, or permission.

**HDM 123 (12) S**  
**Diesel Engine Repair & Performance**

Study and perform diagnosis, repair, tune-up and servicing procedures on current diesel engines used in the heavy-duty truck and equipment industry. Disassemble, clean and inspect engines and components, installing replacement parts as needed. Prereq: HDM 101 or permission.

**HDM 124 (5) S**  
**Preventive Maintenance**

Learn preventive maintenance practices commonly found in the trucking and equipment industry. Includes inspection and determination of failures along with the necessary repairs. Covers proper handling and disposal of hazardous material. Prereq: HDM 101 or permission.

**HDM 127 (8) S**  
**Drive Train**

Covers diagnosis and repair of Drive Train components, including mechanical clutches, flywheels, standard transmissions, torque converters and automatic/power shift transmissions. Learn to troubleshoot, diagnose, disassemble and reassemble transmissions common to the industry; and to check universal joints, drivelines, differential assemblies and final drive units. Prereq: HDM 101 or permission.

**HDM 128 (4) S**  
**Basic Gasoline Engines**

Study the basic operation of gas engines, diagnosing their condition by disassembling various types of current model engines. Prereq: HDM 101.

**HDM 138 (15) S**  
**Steering, Suspension & Brakes**

Study components and systems relating to truck or equipment running gear. Covers theory, operation, diagnosis and repair of wheels, tires, brakes, steering and suspension systems. Prereq: HDM 101 or permission.

**HDM 171 (2) S**  
**Lift Truck Operator**

Learn current regulations and practical fork lift operation in order to obtain a lift truck operator's safety certification card. Prereq: HDM 101 or permission.

**HDM 191 (4) S**  
**Advanced Gasoline Engines**

Theory and operation of fuel and ignition systems used on industrial gas engines commonly found in the heavy-duty industry. Covers common types of ignition and carburetion systems. Prereq: HDM 128 or permission.

**HDM 193 (6) S**  
**Heating, Ventilation & Air Conditioning**

Study the operation, system diagnosis and repair of heating, ventilation and air conditioning systems related to trucks and equipment. Covers retrofit of R-12 systems to R-134a refrigerant. Prereq: HDM 101 or permission.

**HDM 197 (1-7) S**  
**Internship Heavy Duty Diesel**

Gain experience and practice with mechanical repair procedures and skills performed regularly on the job site. Tasks, skills content, format and projects vary depending on the job site. Prereq: Permission.

**HDM 198 (1-10) S**  
**Special Topics Heavy Duty Mechanical Repair**

Study selected procedures and skill tasks for truck and heavy equipment technicians. Course content, format and projects vary. Prereq: Permission.

**HDM 201 (5) S**  
**Shop Practices**

Apply the knowledge and tasks learned in prior mechanical skills units, including repair and service work on a variety of heavy-duty trucks and equipment. Repair procedures and shop policies will simulate work site situations. Students electing to work within the industry will complete a minimum of 66 supervised hours in trade-related employment. Prereq: Permission.

**HDM 298 (1-10) S**  
**Advanced Special Topics Heavy Duty Mechanical Repair**

Advanced study of selected procedures and skill tasks for truck and heavy equipment technicians. Course content, format and projects vary. Prereq: Prior work site experience and permission.

**DRAFTING • NORTH •**

**Architectural Engineering Drafting & Engineering Design Technology**

**TDR 109 (1) N**  
**Architectural Engineering Drafting Lab**

A supervised drafting development lab where students can work on class projects to increase competency and hands-on skills using appropriate software or hand drafting techniques. May be repeated.

**TDR 111 (5) N**  
**Basic CAD Drafting for Construction & Design**

Intro to basic Computer Aided Drafting practices using Autodesk's AutoCAD program. Focuses on drawing commands, layering, scaling, dimensioning and text styles as used in construction/design industry. Emphasis on developing production skills. Open lab.

**TDR 112 (5) N**  
**Intermediate CAD Drafting for Construction & Design**

Continuation of TDR 111. Focuses on team usage of external sources, creation of blocks, paper space/model space, file management and exchange and plotting as it relates to construction/design Industry. May introduce isometrics and 3-D concepts. Emphasis on production skills. Prereq: TDR 111, TDR 174 or permission.

**TDR 113 (5) N**  
**Basic Drafting**

Learn the basic fundamentals of hand drafting. Focus on drafting equipment and its use, basic linework, hand lettering, orthographic projections, isometrics and basic sheet layout. Select discipline options including structures for construction/design or basic mechanical drawings. Open lab.

**TDR 115 (5) N**  
**Civil & Site Drafting**

Develop site plans including basic contours, utility features, simple road layout and storm drainage features. Perform simple calculations.

**TDR 124 (5) N**  
**Material & Methods of Construction**

Intro to the basic materials used in construction, with discussion of manufacturing, fabrication, design and assembly processes for large and small buildings. Focus on steel, concrete, wood and masonry construction.

**TDR 134 (5) N**  
**Systems in Building**

Focuses on the major building systems including HVAC, water and waste, fire protection, electrical and structural. Intro to the Uniform Building Code, type of construction and history. Includes heat loss calculation and lateral loads and their resisting elements, plus earth work and foundations.

**TDR 144 (5) N**  
**Design & Construction Environment**

Covers basic organizational, business and legal aspects of the construction/design industry. Includes business forms, contractual obligations, employment issues, registration duties to the public, safety and other issues which may affect business.

**TDR 160 (5) N**  
**Applied Mechanics I**

Primarily for non-engineering students. Covers basic concepts of force systems, equilibrium, moments, centroids, moments of inertia and simple beam design as applied to structural steel. Includes loading criteria, tributary loads and deflection.

**TDR 161 (5) N**  
**Applied Mechanics II**

A continuation of TDR 160. Covers basic wood beam design. Includes allowable stress, loading criteria, shear and deflection. Covers basic truss analysis.

**TDR 174 (4) N**  
**Intro to CAD for Architectural & Engineering Drafting**

Intro to the basic concepts of Computer Aided Drafting (CAD). Uses AutoCAD to produce construction drawings and details. Covers the impact of CAD on productivity and contemporary design practice.

**TDR 175 (4) N**  
**Intermediate AutoCAD for Architectural & Engineering Drafting**

Covers more advanced AutoCAD commands and features and reinforces basics. Increase productivity and complexity of project assignments. Build the tools necessary to compete for AutoCAD positions in the design community.

**TDR 176 (4) N**  
**Advanced AutoCAD for Architectural & Engineering Drafting**

Advanced concepts of AutoCAD. Develop productivity tools such as macros, templates and system customizing. Begin to work in 3-D.

**TDR 258 (5) N**  
**Contract Drawing Preparation I**

Preparation of architectural drawings with emphasis on wood frame structures and light commercial buildings. Includes building codes, specifications and building department requirements for obtaining building permits. Uses Revit Architecture CAD program.

**TDR 259 (5) N**  
**Contract Drawing Preparation II**

Similar to TDR 258 with emphasis on structural drawings required for obtaining building permits. Use Revit Structure CAD program. Discusses requirements for mechanical, electrical, civil and landscaping drawing sets.

**TDR 265 (5) N**  
**Structural Detailing**

Prepare shop drawings for both structural and reinforcing steel using guidelines from American Institute of Steel Construction and Concrete Reinforcing Institute. Use local shop detailing procedures. Open lab.

**TDR 269 (5) N**  
**Construction Estimating**

Intro to quantity take-offs and pricing of materials by working on problems common to the general contractor. Focus on creating an ordered method.

**TDR 270 (5) N**  
**Advanced Estimating**

A continuation of TDR 269. Covers labor and business costs. Develops a system to prepare estimates for complete jobs from current contract documents.

**TDR 297 (2-10) N**  
**Special Topics in Construction & Design Drafting with CAD**

Study selected topics in Construction and Design Drafting with CAD as considered appropriate by the instructor and/or CDD w/CAD faculty. Course content, format and projects vary.

**TDR 299 (1-3) N**  
**Drafting Design Projects**

An independent laboratory course consisting of specially arranged sessions and substantial independent study to explore areas of special interest or expand specific drafting and/or computer skills.

## DRAFTING • SOUTH •

### Technical Drafting & Design

**TDR 121 (4) S**  
**Drafting Technology I**

Covers basic drafting knowledge, skills and standards required to prepare three-view and pictorial drawings to current industry standards. Prereq: COMPASS or SLEP test.

**TDR 123 (4) S**  
**Drafting Technology II**

Covers basic principles and practices involved in the creation of production drawings including dimensions and tolerancing, sections and auxiliary views. Emphasizes standard practices and variations permitted when required for clarity. Prereq: TDR 121 or permission.

**TDR 126 (3) S**  
**Space Geometry**

Covers basic principles of space geometry and use of direct projection techniques to resolve spatial relationships. Emphasizes projection techniques and application of principles to problem solutions. Prereq: TDR 121 or permission.

**TDR 129 (3) S**  
**Industrial Blueprint Reading**

Primarily for the machinist. Covers the detail drawing page, title block, dimensioning, tolerancing, views of a drawing, drawing notes, drawing changes and geometric tolerancing.

**TDR 131 (3) S**  
**Intro to CAD 2-D**

Learn the features, limitations and considerations associated with the operation of a computer-aided design/drafting (CAD) system. Practice using the AutoCAD micro-based CAD software. Prereq: TDR 121 or concurrent enrollment.

**TDR 133 (3) S**  
**Intermediate CAD 2-D**

Builds on skills developed in TDR 131, providing students with additional instruction on advanced commands of the AutoCAD micro-based CAD software. Prereq: TDR 131.

**TDR 160 (5) S**  
**Surveying /CAD Civil**

Covers basics of surveying and mapping, survey planning and operations, measurement of distances, angles and elevations. Includes taking field notes, calculating and plotting the survey data. Prereq: MATH 111, 112, TDR 123, 131 or permission.

**TDR 169 (4) S**  
**CAD – Electrical**

Covers drafting techniques and standard practices used in civil drawings. Emphasizes appropriate presentation of data. Prereq: TDR 131, & MATH 112 or permission.

**TDR 179 (4) S**  
**CAD – Mechanical**

Covers techniques used to prepare mechanical engineering drawings: basic mechanism geometry, detail and assembly drawings, emphasis on appropriate presentation of data. Prereq: TDR 123 & TDR 131

**TDR 228 (4) S**  
**CAD Sheet Metal/HVAC**

Understand CAD operation including interactive graphics systems start-up, setup of drawing session, menus and commands, geometry, editing, drawing storage and retrieval using the latest version of AutoCAD. Prereq: TDR 123 & TDR 131 or permission.

**TDR 230 (3) S**  
**Basic CAD – 3-D**

Intro to the capabilities of the AutoCAD software to produce both 2-D isometric and basic 3-D graphics including a review of absolute and relative point coordinate and polar coordinate data entry, isometric setup, isometric planes, circles and arcs and translation of non-isometric objects. Covers true 3-D surfaces and 3-D viewing options, the use of X, Y, Z filters and the user-defined coordinate system (UCS). Prereq: TDR 123, 131.

**TDR 231 (3) S**  
**Advanced CAD 3-D**

Explores 3-D graphics and construction capabilities of AutoCAD Release 12. Includes a review of point coordinate entry, X, Y & Z filters and the user coordinate system (UCS). Intro to spherical and cylindrical coordinate entry along with 3-D viewing options, 3-D geometry construction, surface mesh, region and solid modeling. Prereq: TDR 230 or permission.

**TDR 233 (5) S**  
**Field Specialty Drafting – Civil**

Student/instructor designed course covering drafting techniques and practices specific to the field of civil engineering. Prereq: Completion of Technical Drafting & Design certificate.

**TDR 235 (5) S**  
**Field Specialty Drafting – Mechanical**

Student/instructor designed course covering drafting techniques and practices specific to the field of mechanical engineering. Prereq: Completion of Technical Drafting & Design certificate.

**TDR 236 (1) S**  
**Design Project Considerations**

Integration of basic elements of a design project: design process, teamwork, project planning and management and project presentation. Prereq: TDR 233 or 235, TDR 231 and MET 102.

**TDR 237 (2) S**  
**Design Project 1**

Practical application course utilizing previously acquired skills. Concentration on the civil aspects of a major design project. Prereq: TDR 236 or permission.

**TDR 238 (2) S**  
**Design Project 2**

Practical application course utilizing previously acquired skills. Concentration on the aspects of a major design project.

**TDR 239 (4) S**  
**Design Project – Mechanical**

Application of drafting skills and knowledge to the design and drawing of a moderately complex mechanical system, including development of formed sheet metal parts. Prereq: Second-year standing or permission.

**TDR 250 (3) S**  
**CAD & CAM**

Covers the use of G and M codes and MASTERCAM to produce programs to run Computer Numeric Controlled (CNC) equipment. Prereq: IMT 120 or two quarters of computer-aided drafting.

**TDR 263 (2) S**  
**Applied Mechanics 1**

Graphical methods for determining resultants and equilibrants in coplanar, parallel and non-parallel force systems, such as beams and trusses. For drafting majors. Prereq: MET 102 or permission.

**TDR 268 (4) S**  
**Architectural/Structural**

Design considerations and drawing preparation required to construct a frame and masonry building. Includes floor plans, elevations, structural details, mechanical and electrical requirements. Prereq: Second-year standing or permission.

**TDR 272 (2) S**  
**Applied Mechanics 2**

Covers structural material strength and basic calculations involved when loading structural members and joints. For drafting majors. Prereq: TDR 263.

**TDR 280 (4) S**  
**Geometric Dimensioning & Tolerancing**

Basic interpretation of geometric tolerances on engineering drawings. All studies are based on ANSI Y14.5M-1982. Prereq: TDR 179.

**TDR 298 (1-10) S**  
**Special Topics in Drafting**

Individual or group study in industrial drafting. Prereq: Permission.

**DRAMA****DRMA& 101 (5) C,N,S**  
**Intro to Theatre**

(Formerly DRA 100) Intro to theatrical experience through play analysis, acting, directing, critique, stage and costume design, with emphasis on theatre as a performance art.

**DRMA 103 (5) N**  
**Fundamentals of Theatrical Design**

Foundation for all areas of theatrical and entertainment design: costume, scenery, lighting and art direction. Explores the creative process, elements of design and the relationship between text and visual expression. Intro to various mediums and methods of artistic presentation while learning the elements needed to visually communicate responses to literary and musical sources.

**DRMA 108, 109, 110 (2-5) N**  
**Rehearsal & Performance**

Participation in rehearsal and performance process culminating in performance. Audition or instructor permission.

**DRMA 112 (5) C**  
**American Sign Language Theatre**

Intro to artistic sign language expression and the principles of stage acting. Focuses on guided developmental processes, improvisation, scene study, technique and a working knowledge of the character creation for the stage. Covers translating English to ASL. Prereq: ASL& 222 or ASL 202 or permission.

**DRMA 114 (5) C**  
**Mime & Physical Comedy**

Learn physical techniques for acting with the whole body and apply specific mime, movement and acting skills. Explore mime as playwright, creating original mime performances and presenting them to an invited public audience.

**DRMA 116 (4) N**  
**Fundamentals of Acting for the Camera**

Covers the elements of "electronic drama," essential technological and dramatic vocabulary and camera acting fundamentals. Create a filmed sequence for presentation. Recommended: DRMA 121 and Placement in ENGL& 101.

**DRMA 120 (5) C**  
**Intro to Acting**

Builds a foundation of theory and application with the broad use of improvisational techniques and movement for the actor.

**DRMA 121 (5) C,N,S**  
**Acting**

Theory and practice of acting fundamentals. Exercises in voice, movement, observation, imagination and script analysis. Culminates in scene study, production and performance process. Recommended: DRMA& 101 or DRA 100 or DRMA 120.

**DRMA 122 (5) C,N**  
**Acting**

Continuation of DRMA 121 with emphasis on characterization and further scene study. May culminate in public performances. Prereq: DRMA 121.

**DRMA 123 (5) C,N**  
**Acting**

Continuation of DRMA 122 with further emphasis on scene study, critical analysis and scoring scripts. May culminate in public performances. Prereq: DRMA 122.

**DRMA 131 (5) C,N**  
**Intro to Technical Theatre**

Intro to the technical aspects of theatre: lights, sets, props and sound. Learn how these areas are created and managed and how each impacts a production. Work on the technical aspects of mainstage productions.

**DRMA 170 (3) N**  
**Theater Appreciation**

For non-majors who wish to know more about the theatrical event, specifically within the Seattle area. Read and evaluate scripts and performances occurring locally, visit theaters and studios, talk with actors, directors and designers, as well as participate in the theatrical experience with a taste of acting and improvisation.

**DRMA 180 (5) N**  
**Music Theater Production**

Covers the techniques of musical theater through participation in the production of a musical. Participation in any one of several areas: acting, dance, stage management, technical theater, and business management. Specific work is contracted between student and instructor. Acquisition of dramatic roles determined by audition. Recommended: DRMA& or DRA 100 or 121.

**DRMA 182 (4) N**  
**Intro to Musical Theater**

Basic instruction in dramatic and vocal discipline of musical theater. Learn basic techniques of analysis, rehearsal and performance of musical theater through the study of scenes and in-class performance of designated scenes. Recommended: MUSC 119, 130 and/or DRMA& 101 or DRA 100 or 121.

**DRMA 200 (1-5) C,N**  
**Series – Special Projects in Drama**

Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

**DRMA 201, 202 (1-5) C,N**  
**Special Studies**

Special project course. Content, credit and expectations are achieved through discussion with students, including tailoring the projects to student needs, instructor abilities, time frames and department activities. Prereq: Permission.

**DRMA 204 (5) C,S**  
**Jazz I**

Intro to the world of concert Jazz dance. Includes basic concepts and principles of Jazz technique, muscle strengthening and flexibility exercises, building vocabulary of connective movements and skills for basic auditioning and memorizing choreography.

**DRMA 205 (5) C,S**  
**Jazz II**

Continuation of DRMA 204.

**DRMA 206 (5) C,S**  
**Jazz III**

Continuation of DRMA 205.

**DRMA 211 (1-5) C,N**  
**Theater Management**

Special project course in theater management. Content, credit and expectations achieved by discussion with students, including tailoring projects to student needs, instructor abilities, time frames and department activities. Prereq: Permission.

**DRMA 221 (5) C,N**  
**Advanced Acting**

Examination of acting styles and techniques with emphasis on scene study and analysis in contemporary and classical drama. Prereq: DRMA 123 or permission.



**DRMA 222 (5) C,N  
Advanced Acting**

Continuation of DRMA 221. Prereq: DRMA 221 or permission.

**DRMA 223 (5) C,N  
Advanced Acting**

Continuation of DRMA 222. Emphasis on longer acting projects and monologue repertoire. Prereq: DRMA 222 or permission.

*The following courses are variable-credit special projects in different aspects of theater. Content, credit and expectations are arrived at through discussion with students, a tailoring of the projects to student needs, instructor abilities, time frames and department activities. Prereq: Permission.*

**DRMA 224 (1-5) C,N  
Production & Stage Management****DRMA 231 (1-5) C,N  
Props & Sound****DRMA 241 (1-5) N  
Costuming****DRMA 251 (1-5) C,N  
Stage Scenery****DRMA 261 (1-5) C,N  
Stage Lighting****DRMA 271 (1-5) C,N  
Acting****DRMA 272 (1-5) N  
Acting****DRMA 273 (1-5) N  
Acting****DRMA 281 (1-5) C,N  
Directing****DRMA 284 (5) N  
Playwriting**

Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL& 101 or ENG 101 placement or permission.

**DRMA 285 (2-5) N  
Playwriting 2**

Continue to hone playwriting skills in plot, characterization, author's stylistic voice, play structure and dialogue. Further understand the roles of director, dramaturge, actor and others. Prereq: DRMA 284 or permission.

**DRMA 286 (2-5) N  
Playwriting 3**

Continue to hone the skills of plot, characterization, play structure, dialogue, the author's stylistic voice and theatrical collaboration. Covers the initial development process for a full-length play. May be repeated for credit. Prereq: DRMA 285 or permission.

**DRMA 291, 292, 293 (1-5) C,N  
Series – Special Projects in Drama:  
Theatrical Internship**

Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

**DRMA 298 (1-5) N,S  
Individual Projects in Theater**

Individual projects in set design, lighting, costuming, directing, house management and acting, as determined by advanced drama students and the drama faculty. Prereq: Advanced standing, permission.

**EARLY CHILDHOOD  
EDUCATION****CCE 101 (5) N  
Human Development**

Intro to the field of child development. Using an ages and stages approach, examines physical, cognitive language, social and emotional development of children from birth through young school age. Study major theorists and the use of research. Learn basic observation skills and apply the information to child development.

**CCE 102 (2) N  
Issues & Trends in Early Childhood Education**

Examines the profession of early childhood education and the historical and political perspectives for understanding ECE in a changing society. Addresses current educational problems and trends, underlying values assumptions and guides for professional action.

**CCE 113**

This course is now EDUC& 203.

**CCE 125 (5) N  
Program Planning**

Overview of the components of creating a child-responsive learning environment for 3- to 5-year old children that maximizes each child's social, motor, cognitive and expressive development through play. Evaluate the physical environment of two ECE programs using accreditation criteria from the National Academy of Early Childhood Programs.

**CCE 135 (5) N  
Foundations of Early Learning**

Covers special needs of infants, toddlers and 2-year-olds in care-giving settings. Includes brain research, developmental tasks, environmental components for optimal development, caregiver/teacher roles, working with parents and curriculum planning.

**CCE 136 (2) N  
Signing with Young Children**

Intro to American Sign Language (ASL) not only as a second language, but as a valuable tool for enhancing communication with children. Sign language provides a tactile method for children to learn, play and express themselves.

**CCE 145 (4) N  
Music & Creative Expression**

Stimulates both beginning and experienced early childhood teachers to provide a wide variety of musical activities for children's active participation in movement and music making. Develop ease in supporting and leading musical activities while learning a method for selecting and planning a fun, creative and skill-developing music education program for preschool children and older toddlers.

**CCE 159 (4) N  
Behavior Management**

Explores two approaches to discipline—behaviorism and child-centered guidance. For behaviorism, learn to manage the difficult child, administer effective rewards, construct cognitive behavior modification interventions and build desired new behavior through chaining and shaping. For guidance, learn to construct a social learning environment that facilitates social problem-solving and personal responsibility.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN . . . . . Watch Technology**

**NAME TO PREFIX**  
**Watch Technology . . . . . HIN**

**CCE 160 (2-8) N**  
**Connecting to Children**

The 4 modules listed on page 100 provide an opportunity to demonstrate performances essential to the effective influencing of young children.

**CCE 165 (3) N**  
**Understanding Literacy**

Covers philosophies and definitions of literacy. Explores radical, non-traditional thinking of the concept through readings, guest speakers and research.

**CCE 166 (3) N**  
**Cultivating Conversation**

Learn to facilitate the verbal expression of young children by practicing the techniques of responsive listening and informative talk and applying those skills to everyday conversations with children.

**CCE 170 (2-18) N**  
**Creating the Conditions for Learning**

The 20 modules listed on page 100 provide an opportunity to demonstrate performances necessary to create learning environments for children ages 2 to 5. They challenge teachers to investigate and engineer the broad range of quality activities that meet the needs and circumstances of their own school without conflicting with most early childhood models or theoretical approaches.

**CCE 175 (3) N**  
**Mathematics & Design**

Presents methods for developing a sense of competence and enjoyment in exploring cognitive-mathematical activities in children ages 3–5. Covers activities for printing, designing, counting, number sequencing, patterning, graphing, problem-solving and exploring the world of logical-mathematical thinking. Helps children develop effective habits of mind (wondering, figuring it out, predicting and challenge seeking) and the ability to work cooperatively for extended periods.

**CCE 180 (1-6) N**  
**Professional Development**

Covers topics on the care and development of children for early childhood care personnel, educators and parents.

**CCE 185 (3) N**  
**Physical Education in Early Childhood Education**

Explores the outdoor physical environment for children in preschools and childcare settings. Analyze the fundamental motor patterns, the need for risk and personal confidence, the role of natural environments in the development of children and create the ideal physical development program for young children.

**CCE 195 (3) N**  
**Art for Young Children**

Provides the experience of art to children 3 to 8 years old. Explores self-expression in painting, drawing, clay and collage. Conduct a series of art classes for children to practice relating in ways that facilitate the children's self-expression in these fundamental media.

**CCE 200 (3) N**  
**Children & Nature**

Discover the joys of connecting young children with nature. Nature influences social skills, enhances learning, fuels imagination, instills a reverence for the environment and helps children with sensory integration deficit.

**CCE 232 (4) N**  
**Parent Involvement in Early Childhood Education**

Examines the ways teachers can open themselves and the school to include parents as a part of the learning community. Includes expectations parents and teachers have for each other, the tasks parents face in growing up with their children, assertive and supportive help, communicating the aims of school in a democracy and dealing with difficult issues that affect both school and home, such as abuse, death and divorce.

**CCE 234 (3-4) N**  
**Staff Relationships**

Covers interpersonal communication skills needed to function effectively as a contributing, collaborative, helping staff member in the workplace, including Early Childhood Education settings.

**CCE 240 (3) N**  
**Multicultural Dialogues in Early Childhood Education**

Examines the concept of multiculturalism and how it relates to the ECE classroom. Through dialogues, readings and projects, students assess their beliefs, teaching environment and style in order to identify changes and promote respect for differences that accompany children and families.

**CCE 261 (1-6) N**  
**Reading in Early Childhood Education**

Individualized program of study relating to specific problem or content area under faculty supervision. Credits based on work accomplished. Prereq: Permission.

**CCE 285 (5) N**  
**The Project Approach**

For teachers who have been teaching several years. Explore how learning objectives assessment and emergent curriculum combine to foster a creative, personally expressive, co-active, celebratory curriculum for a democratic learning community.

**CCE 292 (6-12) N**  
**Classroom Research**

Use the work setting as the environment to meet the needs of children through social, motor, cognitive, language and expressive skills. Under faculty supervision and peer interaction, examine quality education. Students will analyze their current knowledge and actions in their Early Childhood Education classroom.

## ECONOMICS

**ECON 100 (5) C,N,S**  
**Survey of Economics**

Examines basic principles of economics, determination of national prosperity, income distribution, the role of government, price determination, allocation of resources, economic systems and market behavior.

**ECON 102 (5) C,N,S**  
**Public Economics & Government**

Examines politics, decision-making and current events of American government through basic principles of economics. Emphasizes the role of government related to economic efficiency within the context of diverse political interests.

**ECON& 201 (5) C,N,S**  
**Micro Economics**

(Formerly ECO 200 – Principles of Microeconomics) Covers resource allocation and income distribution with emphasis on price determination, production costs and market structures. Application of economic reasoning to public issues and business. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098. Recommended: ENGL& 101 or ENG 101.

**ECON& 202 (5) C,N,S**  
**Macro Economics**

(Formerly ECO 201 – Principles of Macroeconomics) Analysis of the aggregate economy: GDP, inflation, business cycles, unemployment, fiscal and monetary policies, federal deficits and international trade and finance. Fulfills QSR requirement for A.A. Degree. Prereq: MATH 098. Recommended: ENGL& 101 or ENG 101.

**ECON 298 (1-5) C,N,S**  
**Special Topics in Economics**

Independent study or field work in selected economics topics under the supervision of sponsoring faculty. Prereq: Permission.

## EDUCATION

**EDUC 197,198,199 (2-5) C,N**  
**Education Community Service**

Volunteer in an educational setting, serving as literacy or ESL tutor in an on- or off-campus environment. Prereq: Permission.

**EDUC 200 (1-5) C,N,S**  
**Peer Tutoring**

Tutor training and/or experience. Focus on tutoring techniques and problems in any setting. For more information contact Humanities Division at North (206-527-3709) or Central (206-587-4164); Science and Mathematics Division at Central (206-587-3858); Allied Health, Business, Languages & Cultures at Central (206-344-4347); or the College Transfer Division(s).

**EDUC& 203 (3) C,N,S**  
**Exceptional Child**

(Formerly CCE 113 – Human Exceptionalities) Emphasizes diversity and a value-based approach to human exceptionality and disability using a lifespan view. An historical perspective covers current trends and practices in early intervention, special and general education and life-long supports for individuals with disabilities and their families.

**EDUC 206 (5) C**  
**Intro to Education**

(Formerly EDU 201) Intro to K-12 education. Explores the complexity and dynamics of today's K-12 education environment. Includes suggestions for all-inclusive teaching methods geared toward the increasingly diverse multi-ethnic, multi-cultural and multi-lingual student population. Covers the new federal education bill, as well as the state of Washington student learning goals including the Essential Academic Learning Requirements (EALRS) for student learning.

**EDUC 210 (5) C**  
**Intro to Bilingual Education – Strategies & Methods**

Fundamental principles in the education of second language learners. Examines their unique academic needs and defines effective bilingual education strategies to address these needs, including the effects of culture on language development and content-area instruction.

**EDUC 211 (5) C**  
**Intro to Bilingual Education – History & Theory**

Focuses on historical, legislative and socio-political background, including arguments for and against bilingual education. Includes a survey of research in bilingual education program design and an overview of the organization and structure of bilingual programs.

**EDUC 220 (3) C**  
**Assessing the Bilingual Student – Consideration for Regular & Special Ed Teachers**

Study of issues teachers must consider when assessing bilingual students, including eligibility testing, validity and reliability of standardized tests, alternative assessment, pre-assessment procedures and placement of bilingual students in special education.

**EDUC 250 (1-3) C**  
**Paraprofessionals & Teachers: A Partnership**

Comprehensive intro to knowledge and skills needed by paraprofessionals assigned to assist students in the instructional process and the teachers with whom they work. Includes roles and responsibilities of the paraprofessional, team-building and behavior management.

**EDUC 271 (5) C**  
**ESL Reading & Language Arts**

Learn methods of assessment, placement and instruction of ESL students in reading and language arts. Focuses on instructional techniques for the literacy level and age of the ESL student and on integration of reading and language arts.

**EDUC 272 (5) C**  
**Integrating ESL in the Mainstream Classroom**

Specifically for the teacher with bilingual and monolingual students in the same classroom. Overview of current theories of language acquisition with a focus on practical instructional strategies. Covers a wide repertoire of strategies drawn from bilingual, ESL and mainstream methodologies.

**EDUC 291 (5-10) C**  
**Using the World as a Classroom**

Provides a unique opportunity to earn credit for various travel/study experiences in an international setting.

**EDUC 298 (9) C**  
**ESL Methods for Diverse Language Students**

Examines the languages, cultures and diverse learning styles of limited-English-proficient (LEP) learners and fosters teacher proficiency in English as a Second Language (ESL) methods which respond appropriately to learners' diverse needs and facilitate their English language development. Emphasis on communicative language teaching.

**ELECTRONICS****Industrial Power & Control Technology - Evening Program****EEL 201 (5) N****Industrial Transformers & Motors**

First of 3-course series. Covers the fundamentals of electricity and magnetism, single-phase and three-phase circuits, transformers and electrical machines (AC and DC rotating equipment), hydraulics and pneumatics.

**EEL 202 (5) N****Industrial Motor Controls**

Covers methods for controlling (starting, accelerating, stopping, reversing, etc.) AC and DC motors using both electromagnetic control devices and programmable logic controllers (Allen-Bradley MicroLogi 1000 and SLC-500 PLCs).

**EEL 203 (5) N****Industrial Motor Drives**

Covers the fundamentals of electric drives for both DC and AC motors and practical applications of using a PLC to control an electric drive.

**ELECTRONICS TECHNOLOGY**

*Includes courses in Electronic Engineering Technology, Biomedical Equipment Technology, Digital Electronics Telecommunication Technology, and Broadband Technology.*

**EET 105 (3) N****Intro to Technology**

Survey of the field of electronics and technologies related to electronic occupations to learn the standards, practices and skills necessary for employment in electronic-related occupations.

**EET 107 (4) N****Principles of Electronics**

First in a series. In-depth study of electronics; energy, work, power, current, voltage; Ohm's and Kirchhoff's laws; capacitance; intro to AC. Coreq: EET 108.

**EET 108 (4) N****Principles of Electronics Lab**

Lab with EET 107. Uses computer models throughout hands-on labs. Coreq: EET 107.

**EET 109 (5) N****Mathematical Applications for Circuit Analysis**

Overview of basic mathematical applications for electronic circuit analysis. Includes fundamental concepts of operations with numbers, the metric system, fundamental algebraic concepts, graphing, exponential and logarithmic functions, right angle triangles, basic trig functions, vectors and complex numbers.

**EET 112 (6) N****Fundamentals of Fluid Power & Electromechanical Systems**

Intro to fluid power (hydraulics and pneumatics) and electrical power (AC and DC motors, single-phase and three-phase transformers) components and applications. Prereq: EET 109 or MATH 102 and EET 114 or PHYS& 121.

**EET 114 (5) N****Applied Physics**

Practical coverage of physics for electronics students: mechanics, matter and heat, wave motion and sound, electricity and magnetism, light and modern physics as applied to industrial-technical fields. Prereq: EET 109.

**EET 117 (4) N****Electronics Devices**

Semiconductor devices and their applications. Prereq: EET 107 or 161. Coreq: EET 118.

**EET 118 (4) N****Electronics Devices Lab**

Lab with EET 117. Uses computer models throughout hands-on labs. Coreq: EET 117.

**EET 127 (4) N****Intro to Digital & Analog Circuits**

Fundamentals of analog and digital circuits. Analog topics cover operational amplifier characteristics and linear applications. Digital topics include number systems. Boolean algebra, logic gates, combinational logic and flip-flops. Prereq: EET 117. Coreq: EET 128.

**EET 128 (4) N****Intro to Digital & Analog Circuits Lab**

Lab with EET 127. Uses computer models throughout hands-on labs. Coreq: EET 127.

**EET 131 (5) N****IT Essentials I – A+ Certification**

Part 1 of 2 A+ Certification courses. Intro to essentials of configuration and troubleshooting of computer hardware, Windows operating systems, computer security and networks with a focus on A+ Certification. Uses the IT Essentials curriculum developed by Cisco Systems and prepares students for the A+ Certification Essentials Test.

**EET 132 (5) N****IT Essentials – A+ Certification (Advanced)**

Part two of A+ Certification. Addresses advanced aspects of installing, maintaining and configuring, computer hardware, operating systems, networks and security systems. Prepares students for the Comptia A+ IT Technician or Remote Support Technician or Depot Technician test.

**EET 135 (5) N****Intro to Broadband**

Covers entry-level skills for technicians, including broadband cable video and telephony. Covers skills required for technicians working in this expanding data delivery industry. Addresses high-speed internet, TV/HDTV and digital voice (telephony) components of the broadband infrastructure. Prereq: EET 131.

**EET 136 (5) N****Intro to Robotics**

Intro to foundation concepts in building and programming robots. Students program microcontrollers and configure electronic components to enable robotic activity. Includes programming of LED lighting, digital pushbuttons, motion control, digital displays, light measurement and frequency and sound.

**EET 160 (5) C,N****Intro to Electricity & Electronics**

Survey of electronics and electricity addressing AC/DC, resistors, capacitors, inductors, semiconductors, amplifiers, operational amplifiers, digital systems, and microprocessors. Provides a quick, one-course overview of this material without the details and rigors of math found in standard course offerings.

**EET 161 (5) C,N****DC Principles of Electronics**

Covers physics as applied to electricity and magnetism, electrical and electronic terms and units. Intro to electronic measuring devices, electrical circuits, magnets, magnetism, meter movements and DC circuit analysis. Prereq: High school algebra.



**EET 162 (5) N**  
**AC Principles of Electronics**

Intro to AC theory, circuit analysis and AC measuring devices. Computer modeling, hands-on labs. Prereq: EET 107 or EET 161.

**EET 163 (5) N**  
**Solid State Electronics I**

Semiconductor devices and their applications. Computer modeling and hands-on lab. Prereq: EET 107 or EET 161.

**EET 165 (5) N**  
**Analog Circuits & Devices I**

Explanation of the op amp, nomenclature, identification, characteristics and parameters and basic circuit application. Computer modeling and hands-on lab Prereq: EET 163.

**EET 166 (5) N**  
**Analog Circuits & Devices II**

Continuation of common analog devices, circuits and subsystems commonly found in the fields of communication and industrial controls. Computer modeling and hands-on lab. Prereq: EET 165.

**EET 170 (5) N**  
**Digital Circuits I**

Fundamentals of digital electronics numbering systems, logic gates, DeMorgan's theorem, Karnaugh mapping, flip-flops and counters. Computer modeling and hands-on lab. Prereq: EET 161.

**EET 171 (5) N**  
**Digital Circuits II**

Continuation of logic fundamentals, logic IC families and their characteristics, logic controls and associated circuitry. Computer modeling and hands-on lab. Prereq.: EET 170.

**EET 197 (2-10) N**  
**Special Topics in Electronics**

Study of selected topics considered appropriate by the instructor and/or faculty. Course content, format and projects vary. Prereq: Permission.

**EET 198 (1-2) C,N**  
**Electronics Workshop**

Open lab with instructor. Analog and digital course work enhancement. May include proper use of bench equipment, troubleshooting techniques, study skills and group problem-solving.

**EET 207 (4) N**  
**Advanced Principles of Electronics**

Advanced AC principles and DC concepts of frequency, resonance, inductance, capacitance and reactance with emphasis on magnetic circuits and energy. Prereq: EET 107 or EET 161 and EET 109. Coreq: EET 208.

**EET 208 (4) N**  
**Advanced Principles of Electronics Lab**

Lab with EET 207. Uses computer models in hands-on lab. Coreq: EET 207.

**EET 217 (4) N**  
**Digital & Analog Circuits II**

Continuation of analog (active filters, oscillators, voltage regulators) and digital (arithmetic operations, counter, shift registers). Includes digital-to-analog. (D/A) and analog-to-digital (A/D) converters, data acquisition systems. Prereq: EET 127. Coreq: EET 218.

**EET 218 (4) N**  
**Digital & Analog Circuits II Lab**

Lab with EET 217. Use computer models in hands-on lab. Coreq: EET 217.

**EET 241 (5) N**  
**Principles of Telecommunications I**

Intro to basic telephony: apparatus and plant design, network design, network traffic planning, private and switched networks, data systems and testing equipment. Hands-on lab.

**EET 242 (5) N**  
**Principles of Telecommunications II**

Continuation of telephony: apparatus, plant design, network design, traffic planning, private networks, data systems, distribution of switched networks. Hands-on lab. Prereq: EET 241.

**EET 243 (5) N**  
**Principles of Telecommunications III**

Basic switched telephony: telephone apparatus and plant design, switched network designs and network traffic planning of switched and private switched networks. Hands-on lab. Prereq: EET 242.

**EET 251 (5) N**  
**Microprocessor Fundamentals I**

Fundamentals of microprocessors and microcomputer systems. Review of digital fundamentals, microcomputer system organization, assembly programming, I/O devices and interfacing. Prereq: EET 127 or EET 170 or equivalent.

**EET 271 (1-10) N**  
**Advanced Technical Modules in Electronics Technology**

Students customize programs by choosing advanced topics in electronics. Modules vary in format; may include lectures, labs, independent research, demonstrations. Prereq: EET 112, EET 207 and EET 208. Coreq: EET 217 and EET 218.

**EET 276 (1-10) N**  
**Advanced Technical Modules in Power & Industrial Control**

Students customize programs by choosing advanced topics in Industrial Power and Control. Modules vary in format; may include lectures, labs, independent research, demonstrations. Prereq: EET 112, EET 207 and EET 208. Coreq: EET 217 and EET 218.

**EET 285 (3) N**  
**Electronics Technology Project**

Team-oriented course project capstone experience in electronics technology and related specialty programs. Students plan, design, implement and present an electronics-oriented project of suitable complexity. Prereq: EET 217, EET 218.

**EET 286 (5) N**  
**Biomedical Equipment I**

Covers standards of health care settings, clinical principles behind medical technology. Stresses maintenance and repair of clinical equipment. Labs emphasize function and calibration. Prereq: EET 165 and EET 170 or EET 127; AHI 100; BIOL& 128 or ANP 128 or equivalent.

**EET 287 (12.5) N**  
**Biomedical Equipment II**

Continuation of EET 286. Emphasizes specialized medical equipment technologies including imaging and clinical laboratory. Labs emphasize troubleshooting and repair. Includes preparation for the AAMI certification exam. Prereq: EET 286.

**EET 291 (1-4) N**  
**Electronics Externship**

On-the-job training for electronics students who have finished their electronics certificate requirements and would like to improve their skills before actively seeking a job. Prereq: Completion of appropriate amount of designated program and permission. 55 hours of job-related work experience = 1 credit.

**EET 297 (4) N****Biomedical Technician Externship**

Provides necessary work experience in a hospital, clinic, equipment manufacturer or laboratory, which is critical to job placement in the biomedical field. Prereq: Permission.

**EET 298 (1-5) C,N****Special Topics in Electronics Technology**

Selected topics in electronics technology. Prereq: Permission.

**EET 299 (1-7) C,N****Special Projects in Electronics**

Independent electronics study project assigned and directed by the instructor. Prereq: Permission and enrollment in electronics program.

**EMERGENCY MEDICAL TECHNICIAN (EMT)****AHE 190 (8) N****Emergency Medical Technician**

Upgrade emergency medical care skills. Meets the Washington State Department of Social and Health Services criteria for EMT certification. Prereq: Contact the Allied Health Division office.

**AHE 191 (2-5) N****EMT – Continuing Education**

Provides continuing education for EMTs to meet annual requirements for recertification. Prereq: Certified or Licensed emergency medical technician status.

**ENGINEERING****Mechanical Engineering Technology****MSC 101 (5) N****Intro to Material Science**

Intro to the molecular structure of different materials and the resulting effects in tensile strength and heat transmission. Emphasis on semiconductors and applications to electronic devices. Prereq: PHYS& 122 or PHY 102 and PHYS 118, CHEM& 121 or CHE 101, or equivalent; and MATH 118 and 120 or equivalent; or permission.

**MET 102 (3) S****Creative Technical Problem-Solving**

Intro to systematic procedures for engineering problem-solving. Review of basic math principles, geometry, algebra, trigonometry and basic physical principles related to analysis of technical engineering problems.

**MET 180 (15) S****Electronic Assembly (Short Term Training)**

Intro to wire harness construction, mechanical assembly and soldering skill for “through hole” and SMT. Includes small electric motor assembly, soldering of various terminals, wire tinning, passive and active components, integrated circuits and other special devices. Emphasis on component removal techniques through hole printed circuit boards, surface mount technology and basic soldering processes.

**MET 205 (4) S****Technical Statics**

Study of forces and force systems in equilibrium. Includes analysis for forces in trusses, frames and machine components; friction; location of centroids; and evaluation of area moments of inertia. Prereq: MATH 113.

**MET 210 (4) S****Technical Strength of Materials**

Studies principles of tension, compression and shear stress to determine the correct size for structural beams and shafts. Examination of distribution and magnitude of stress in welded and riveted joints, thin-walled cylinders, torsional members and beams. Prereq: MET 205.

**MET 220 (4) S****Basic Hydraulics**

Intro to the various components used in industrial hydraulic systems. Includes construction, characteristics, schematic symbols and typical applications. Build a hydraulic circuit with actual components in the fluid power laboratory.

**MET 298 (1-10) S****Special Topics in Mechanical Engineering**

Special topics for individual or group study in the mechanical engineering technology field. Prereq: Permission.

**Engineering (Pre-major)****ENGR 110 (1) C,S****Engineering Orientation**

Covers fields of engineering, career options and general information. Offered on a Satisfactory (S) grade basis only.

**ENGR& 111 (4) C,N,S****Engineering Graphics I**

(Formerly EGR 123 – Intro to Engineering & Graphics Design) Covers principles of orthographic projection, freehand sketching, pictorials, lettering, scales and use of instruments, basic dimensioning and descriptive geometry. Intro to computer-aided and designed drafting. Prereq: MATH& 141 or MAT 122.

**ENGR& 112 (4) C,N,S****Engineering Graphics II**

(Formerly EGR 124 – Engineering Graphics) Continuation of ENGR& 111. Includes basic principles of revolution and principles used to solve problems relating to curved and warped surfaces; intersection of surfaces; development of common shapes and surfaces; and procedures for finding the locus of a line. Prereq: ENGR& 111 or EGR 123.

**ENGR 116 (4) S****Engineering Design & Creativity**

(Formerly EGR 111) Examine the nature of creativity and its process. Intro to analysis and solution of engineering problems, applications of vectors and calculus in statics and dynamics.

**ENGR 140 (5) N****Engineering Problems**

Covers problem-solving methods; analysis in measurements, probability and statistics; dimensions and unit systems; vector algebra, intro to scalar statics. Prereq: MATH& 141 or MAT 122.

**ENGR 141 (5) S****Scientific Engineering**

Covers problem analysis, algorithm design, numerical techniques and the elements of programming using MATLAB or similar high-level programming language. Emphasis on learning how to write clean, efficient and well-documented programs for modeling of scientific and engineering problems. Prereq: MATH& 142 or MAT 123 or higher.

**ENGR 142 (5) C,S****Computer Programming for Engineers**

**Central:** Learn the general principles of modern programming, including how to design, implement, document, test and debug computer programs. Based on Java. Covers objects, messages, expressions, statements, methods, classes, conditionals, iterations, arrays and collections. Fulfills QSR requirement for A.A. degree. Prereq: CSC 110 and MATH& 141 or MAT 122 (C). ENGR 142 may be taken as CSC 142.

**South:** Intro to computer science for scientists and engineers. Emphasizes design, algorithms (variables, expressions, statements), abstraction (data types, functions) and analysis (correctness, efficiency). Fulfills QSR requirement for A.A. degree. Prereq: CSC 110 and MATH& 141 or MAT 122 (S). ENGR 142 May be taken as CSC 142

**ENGR 161 (5) S**  
**Plane Surveying**

Intro to basic surveying methods and functions, office procedures and field practices in the use of instruments. Organization of the field party to learn each job function. Includes theory and application of tapes.

**ENGR 170 (4) S**  
**Intro to Material Science**

Survey of materials used in engineering. Covers physical and chemical principles related to structure, properties and engineering applications. Studies include metals, alloys, semiconductors, polymers, ceramics and composites. Prereq: CHEM& 161 or CHE 140.

**ENGR 171 (1) S**  
**Material Science Lab**

Practical application of the terminology of engineering materials and of methods used to solve materials problems. Experiments expand on ENGR 170. Includes a tour of an industrial materials testing lab. Prereq: ENGR 170.

**ENGR& 204 (5) C,N,S**  
**Electrical Circuits**

(Formerly EGR 215 – Fundamentals of Electrical Engineering) Covers basic circuit and systems concepts. Includes resistors, sources, capacitors, inductors and operational amplifiers. Includes solution of first and second order linear differential equations associated with basic circuit forms. Prereq: PHYS& 222 or PHY 202 and MATH& 152 or MAT 125.

**ENGR& 214 (5) C,N,S**  
**Statics**

(Formerly EGR 210 - Engineering Statics) Covers statics, Newton's Laws, resultants, force systems, equilibrium diagrams, analysis by vector algebra of two- and three-dimensional structures, frames, machines, trusses, beams and friction. Prereq: MATH& 152 or MAT 125 and ENGR 140 or PHYS& 221 or PHY 201.

**ENGR& 215 (5) C,N,S**  
**Dynamics**

(Formerly EGR 230 - Engineering Dynamics) Studies motion and the forces which affect the motion, including rectilinear motion, curvilinear motion, plane motion, dynamic force analysis, work and energy, impulse and momentum. Prereq: ENGR& 214 or EGR 210 with a 2.5 or better and MATH& 152 or MAT 125.

**ENGR& 224 (5) N,S,C**  
**Thermodynamics**

(Formerly EGR 260) Intro to thermodynamics from a macroscopic point of view. Development of the laws of thermodynamics and application to energy transformations and state changes. Prereq: MATH& 153 or MAT 126, PHYS& 222 or PHY 202 and CHEM& 161 or CHE 140.

**ENGR& 225 (5) C,N,S**  
**Mechanics of Materials**

(Formerly EGR 220) Covers basic relationships between axial, torsion, bending and shear loads acting on solid elements such as rods, shafts, columns and beams and their allowable stress, strains and deformations, Mohr's circle of stress. Prereq: ENGR& 214 or EGR 210 and MATH& 152 or MAT 125.

**ENGR 271 (6) S**  
**Fundamentals of Digital Logic Design**

Intro to digital logic, Boolean algebra, combinational and sequential circuits and logic design, programmable logic devices and the design and operation of digital computers, including ALU and I/O. Weekly labs. Prereq: CSC 142 or permission.

**ENGR 298 (1-5) N,S**  
**Special Topics**

A seminar of selected topics and/or activities in engineering. Prereq: Variable, dependent on topic.

**ENGR 299 (1-5) N,S**  
**Independent Study**

Independent study of approved engineering topics. Prereq: Permission.

**ENGLISH**

*See Languages & Literature, page 243.*

**ENGLISH AS A SECOND LANGUAGE**

*See Languages & Literature, page 247.*

**ENVIRONMENTAL SCIENCES**

**ENV 150 (5) C,N,S**  
**Environmental Issues & Problems**

Covers natural principles governing operation of the environment including interactions between humans and the environment, emphasizing attitudes and actions to maintain a healthy ecosystem.

**ENV 170 (5) N**  
**Energy & Resources: Now & Future**

Study of energy and other resources, including simple descriptions and definitions, personal needs and uses and worldwide production and consumption now and in the future. Includes energy and resource alternatives.

**ENV 201 (5) N,S**  
**General Ecology**

Covers the nature of ecosystems, energy flow, bio-geochemical cycles, population dynamics, organization and dynamics of communities and identification of environmental problems.

**ENV 203 (5) N**  
**Environmental Issues & Problems II**

Encompasses the role of technological humans in the global ecosystem. Covers current environmental topics with a view toward solutions. Includes urban growth, air and water pollution and siting of nuclear power plants. Prereq: An environmental science, geology or geography class, or permission.

**ENV 205 (3) N**  
**East African Bio-Cultural Ecology**

Designed for educators interested in developing classroom materials based on topics and areas covered by the East Africa Study and Travel Program. Classroom work and a field trip.

**ENV 221 (5) S**  
**Nuclear Choices**

Covers nuclear-generated electricity, nuclear waste, and nuclear weapons, including those existing and those proposed for the near future. Explores possible defenses against nuclear war and ways to avoid it. Writing class.

**ENV 298 (1-5) C,N,S**  
**Special Topics**

Seminar of selected topics and/or activities. Prereq: Variable, dependent on topic.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**

HIN . . . . . Watch Technology

**NAME TO PREFIX**

Watch Technology . . . . . HIN

**ENV 299 (1-5) C,N,S**  
**Independent Study**

Independent study of approved topics in environmental sciences. Prereq: Permission.

**FILM & VIDEO COMMUNICATIONS**

**COM 101 (5) C**  
**Television Theory & Camera Composition**

Interdisciplinary course. Intro to mass communications, TV production, TV equipment and the power of teamwork. Learn production techniques for TV and cable through the duties and responsibilities of the producer, director, writer and field camera operator. Develop scripts, storyboards, treatments and work in groups to produce projects emphasizing camera composition, visualization, continuity, lighting and camera movement.

**COM 102 (5) C**  
**Television Production & Post-Production**

Continuation of COM 101. Build on the fundamentals of single-camera video production. Emphasis on a production team and working through each stage of the process. Stresses importance of pre-production and more detail in writing, casting, blocking, designing, shooting and editing. Explores more fully the post-production process and its role in shaping a final video piece. In addition to team projects, requires full participation in an in-studio class project designed to maximize each student's contribution and achieve a high technical standard under professional conditions.

**COM 103 (5) C**  
**TV Production Crew & Team Projects**

Intro to TV production facilities and equipment. Describes the duties and responsibilities of a professional TV production crew: Producer-Director, Writer, Art Director, Audio, Camera, Lighting Technician, Set Designer and Production Manager. Industry representatives participate in teaching. Stresses communication skills and teamwork.

**COM 130 (3) C**  
**Television Production Design**

Intro to the tools and processes of design construction of flats, risers and sets, using various formats needed for video and theatre productions. Covers principles of design, (color theory, lighting, pigment and line), their interactions in developing two-dimensional and three-dimensional imagery and integration into production techniques. Develop and construct generic modules for sets, theatre sets and a versatile video set.

**COM 140 (3) C**  
**Intro to Media Images**

Combines analysis, criticism and writing to develop critical viewing skills using live and recorded media presentations. Explores the origin, impact and meanings of images from personal and cultural perspectives as purveyors of personal and social points of view. Examines images as the text of messages to develop a visual vocabulary. Participation required.

**COM 197 (1-5) C**  
**Film & Video Communications**

Earn work experience credit in the video field. Prereq: Permission.

**COM 200 (4) C**  
**Small Group Productions**

Lab opportunity to create a variety of video projects within minimal crew environments. Introduces 3/4 inch and S-VHS video cameras and editing systems. Concentrates on team production that includes in-studio multi-camera live-to-tape exercises, single camera news and documentary presentations and single camera film style narrative pieces. Coreq: ENGL 155.

**COM 214 (3) C**  
**History of Film & Video**

Studies the visual language and its history as it has evolved in film and video. Increases visual vocabulary and visual literacy skills by examining a variety of multi-cultural themes, through cinematic forms from both foreign and domestic filmmakers and videographers. Analyze effective film and video production.

**COM 215 (3) C**  
**Media Law & Ethics**

Intro to the basic legal concepts applicable to the film and video industries.

**COM 225 (5) C**  
**Advanced Television Productions & Applied Communications**

Explores single camera and multiple camera techniques and visual style in television production. Produce and post-produce material for professional reels and Spring Showcase. Covers staging and blocking in both single and multiple camera environments. Experience a variety of crew positions.

**COM 230 (2) C**  
**Technical Operations**

Provides extensive hands-on use of control room equipment including an edit controller, switcher, effects generator, character generator, wave form monitor, time base corrector, audio board and communication system. Prereq: Second-year standing.

**COM 235 (3) C**  
**Production/Management**

Overview of the duties and responsibilities of a production-manager: script, location, union requirements, production board, contracts and negotiations, and fiscal management. Rotate in the role of supervisor of a production crew for television and stage productions. Explore interpersonal interactions.

**COM 236 (3) C**  
**Audio Production**

Learn the basics of sound theory, capture, creation, manipulation and duplication in video production.

**COM 240 (3) C**  
**Production Operations**

Covers the theory and business practices of Video/Theater Film industry. Help create 30-minute production. Teams submit proposals for a 5-minute segment for a 30-minute pilot for a major network. Story conference with the executive producer to evaluate how the plan fits the pilot's theme. Selected teams will produce one segment of the pilot.

**COM 250 (2) C**  
**Portfolio Preparation**

Explores careers in video, film, broadcast, corporate TV and digital media. Focuses on career goals, job searching and professional portfolios. Prereq: 2.0 or higher in all previous 200 level courses or permission from division Dean.



**COM 260 (3) C**  
**Directing**

Studies the Director's role in the art of film and video productions.

**COM 270 (3-5) C**  
**In-House Productions**

Covers Video/Theatre/Film Industry theory and business practices. Produce at least one 3-5 minute project. First phase of an in-house production unit which provides production services for in school and outside projects. Also provides outside employment for second-year students and graduates and can be used for the internship credits or advanced placement credits. Projects can be used for recruitment purposes by the institution.

**FOOD PRODUCTION**

*See Hospitality/Food Production/Culinary Arts, page 222.*

**FOREIGN LANGUAGES**

*See Languages & Literature, page 242.*

**FRENCH**

*See Languages & Literature, page 251.*

**GENERAL EDUCATIONAL DEVELOPMENT**

*To take GED classes, a student must be a U.S. citizen, have a green card, or be a refugee or immigrant.*

**GED 050 (1-15) C,N,S**  
**Basic GED Preparation Level 5**

Prepares learners to pass successfully any two of the five GED subject-area tests.

**GED 051 (1-15) C,N,S**  
**Basic GED Preparation Math Level 5**

Prepares learners to pass successfully the GED Math test.

**GED 052 (1-15) C,N,S**  
**Basic GED Preparation Communications Level 5**

Prepares learners to improve their general reading, writing and test-taking skills with special emphasis on reading for the GED Social Studies, Science and Language Arts tests.

**GED 054 (1-15) C,N,S**  
**Basic Computer-Assisted GED Preparation Level 5**

Provides learners the opportunity to improve their general reading, writing, math and test-taking skills for the GED tests through the use of micro-computers and relevant basic skills software.

**GED 060 (1-15) C,N**  
**Advanced GED Preparation Level 6**

Prepares learners to pass successfully the three remaining GED tests needed to complete the Official GED certificate.

**GED 061 (1-15) C,N**  
**Advanced GED Preparation Math Level 6**

Prepares learners to use the math concepts and applications needed to pass the math portion of the official GED test.

**GED 062 (1-15) C,N**  
**Advanced GED Preparation Communications Level 6**

Improves general reading, writing and test-taking skills with special emphasis on reading for the GED Social Studies, Science and Art and Literature tests.

**GED 064 (1-15) C,N**  
**Advanced Computer-Assisted GED Preparation Level 6**

Improves general reading, writing, math and test-taking skills for the GED tests through the use of micro-computers and relevant basic skills software.

**GEOGRAPHY**

**GEG 100 (5) C,N,S**  
**Intro To Geography**

Intro to major concepts of geography, including patterns of human occupancy, analysis of population, settlement, resource use and environmental concerns.

**GEG 155 (5) C**  
**Global Political Geography**

Survey of political geography and scientific theory, offering students an analytical understanding of forces affecting the territorial and functional role of the state in today's world. Examines contemporary cases of territorial and functional change among states.

**GEG 200 (5) C,N,S**  
**Intro to Human Geography**

Intro to human patterns on the Earth's surface, distribution, political divisions and economic activities. Emphasis on the role of geography in understanding the developments and diffusion of value systems and cultural differences in the 20th century.

**GEG 205 (5) C,N,S**  
**Physical Geography**

Survey of character and location of different types of land forms, climates, soils, vegetation, minerals, water resources and significance to human occupancy.

**GEG 207 (5) C,N,S**  
**Economic Geography**

Focus on human survival. Examines resource scarcity and uneven distribution and use of technology to extract natural resources. Emphasis on competition for resources and major world conflicts, past and present, stemming from this competition.

**GEG 230 (5) C,N,S**  
**Urbanization in Developing Nations**

Focus on cities in their cultural and economic contexts, geographical patterns, internal structure, current problems in rapidly growing cities and selected policy solutions.

**GEG 260 (5) N**  
**Geopolitics of the Middle East**

Geopolitics is the "game nations play" to extend influence and control over nations. Focuses on the "game" as it relates to the Middle East and Arab, Afghan, Persian, Egyptian, Israeli and Palestinian people and current events and the geopolitics of petroleum. Course material is controversial.

**GEG 298 (1-5) C,S**  
**Special Topics in Geography**

Independent study in selected geography topics under faculty supervision. Prereq: Permission.

**GEOLOGY**

**GEO& 101 (5) N,C,S**  
**Physical Geology**

(Formerly GEL 101) Covers the origin and development of minerals and rocks, changing features of the Earth's crust and the processes that have shaped these features. Lab included. One field trip may be required.

**GEOL& 103 (5) N,S****Evolution of the Earth**

(Formerly GEL 103) Studies the formation and development through time of the solid Earth, atmosphere, and biosphere. Covers past movements and locations of the continents and interpretation of past environments as recorded in rock and fossil records. Lab included. One field trip may be required.

**GEOL 104 (5) N****Intro to Remote Sensing/GIS**

Covers the fundamentals of ArcView and satellite remote sensing and the basics of using a geographic information system (GIS) to analyze and draw conclusions about the geology of Seattle and larger areas. Prereq: GEOL& 101, or PHYS& 123, or CHEM& 162, or equivalent or permission.

**GEOL 105 (5) C****Introductory Field Geology**

Survey of physical geology, including the Earth's interior and exterior. Covers the origin and evolution of the Earth, rocks and minerals, surface processes such as glaciation, river erosion and transport and mass movement. Field exercises involve data collection and analysis. Course may require extended overnight stays. Lab included.

**GEOL 106 (5) N,S****Dinosaurs**

(Formerly GEL 100.) Studies dinosaurs and the world they lived in. Covers origins, evolution, biology, behavior and extinction of dinosaurs and their relationship to birds and mammals. Intro to history of the biosphere, Earth's climate and its changes.

**GEOL 108 (5) N****Minerals, Gems & Fossils**

Intro to the nature of earth materials, including minerals, with an emphasis on gem minerals and fossils. Covers mineral composition, structure, physical properties, and origins, along with gemology, color mechanisms, history and lore of gems, and uses of gems. Covers fossil identification, preservation and interpretation. Lab class.

**GEOL& 110 (5) N,C,S****Geology & the Human Environment**

(Formerly GEL 102.) Focus on the effects of geologic processes and materials on human activity and vice versa. Emphasizes awareness of geologic aspects of our everyday environment including problems, formulation, and evaluation of solutions. Lab included. Up to three field trips may be required.

**GEOL 111 (1) N,C****Geology Field Day**

(Formerly GEL 115.) A one-day field trip and five-hour lecture on active and ancient geology in the Pacific Northwest. Topics include faults, glaciers, fossils, landslides, and the Cascade Mountain Range. Lab credit (N). Also offered as SCI 111.

**GEOL& 115 (5) N****Geology of the National Parks & Monuments**

(Formerly GEL 200.) Study of the geology and geologic history of selected national parks and monuments in the context of the geologic history of North America, the Pacific Basin, and the Atlantic Ocean. Labs deal primarily with geologic maps. At least two field trips required.

**GEOL 118 (1) N,C****Volcano Field Day**

Intro to the origin and destruction of the Cascade volcanoes such as Mount St. Helens, Mount Rainier and Glacier Peak. Includes five hour lecture and one day field trip. Lab credit (N). Also offered as SCI 118.

**GEOL 202 (3) N****Geology & Human Environment: East Africa**

Cenozoic geologic evolution of East Africa with specific emphasis on the origin of the East African Rift Valleys and their relation to the evolution of early hominids.

**GEOL 207 (5) N****The Ice Ages**

Provides a history of the plants, animals, and continental ice sheets of the last three million years. Special attention to fossil and archaeological records of human beings. Lab included. Two Saturday field trips may be required.

**GEOL& 208 (5) N****Geology of the Northwest**

Covers the geologic history and description of Washington, Oregon and Idaho, and selected nearby areas. Emphasis on use of geologic principles to interpret present landscapes. Lab and field trips included. Prereq: GEOL& 101 or permission.

**GEOL 298 (1-5) N****Special Topics**

Seminar on selected topics or activities in geology. Prereq: Variable, dependent on topic.

**GEOL 299 (1-5) N****Independent Study**

Independent study of selected geology topics. Prereq: GEOL& 101 and permission

**GERMAN**

*See Languages & Literature, page 251.*

**GRAPHIC DESIGN & ILLUSTRATION****DES 101 (3) C****Drawing I**

Provides the fundamentals and principles of drawing, especially as applied to graphic design. Emphasis on spatial perception, composition, accuracy and the ability to develop an idea or visual story with drawings.

**DES 102 (3) C****Drawing II**

Draw the human figure from live models. Use various media and techniques to create form with line and tone. Emphasis on drawing accurate, dynamic and expressive representations of the human figure using elements of design in good composition.

**DES 103 (3) C****Drawing III**

Conceptualize and illustrate using fundamental drawing skills and principles, including spatial perception, composition and figure drawing. Plan illustrations to fit within the context of a typographic design and layout.

**DES 109 (2) C****Graphic Design Business Practices**

Explore the business fundamentals of graphic design and illustration. Intro to professional issues, ethical standards, pricing, salaries, business management and contractual arrangements. Explore opportunities in the industry, both staff and freelance, using exercises, informational interviews and guest speakers.

**DES 110 (2) C****History of Graphic Design**

Examines the evolution of graphic design, including pivotal individuals from two historical points of view: relationships within their time and relationships preceding and following their time.

**DES 121 (3) C****Typography I**

Intro to the recognition and practice of the elements of typographic style.

**DES 122 (3) C**  
**Typography II**

Gain greater skill in recognition and practice of the elements of typographic style, successfully completing specific graphic design projects in which typography is major. Emphasis on combination of typography and image, as well as the correct and skillful use of typographic functions in page layout software.

**DES 123 (3) C**  
**Typography III**

Practice typographic design and art direction. Emphasis on creating and meeting typographic design criteria based on client and context, as well as mastery of all necessary typographic elements in page layout software.

**DES 131 (3) C**  
**Graphic Design I**

Intro to the social context and process of graphic design.

**DES 132 (3) C**  
**Graphic Design II**

Intro to layout and advertising design. Practice the design process and principles of perceptions studied in Graphic Design I.

**DES 133 (3) C**  
**Graphic Design III**

Apply concepts from Graphic Design I and II to three-dimensional graphic design.

**DES 145 (3) C**  
**Graphic Production I**

Learn the Macintosh operating system and basic hardware and software issues as they pertain to graphic production. Develop proficiency with illustration and page layout applications in support of Graphic Design I.

**DES 146 (3) C**  
**Graphic Production II**

Study terminology and practical procedures used in various kinds of graphic production, including computer illustrations, design and digital prepress.

**DES 147 (3) C**  
**Graphic Production III**

Learn digital manipulation for quality output including scanning, various color modes, resolution, calibration, file formats, selection tools, image composing, color correction, curves vs. levels, masks and layers, filters, Photo CD, UCR and GCR.

**DES 197 (2-5) C**  
**Work Experience – Graphic Design**

Earn work experience credit in Graphic Design and Illustration. Prereq: Permission.

**DES 231 (4) C**  
**Graphic Design IV**

Emphasize expressive, creative and conceptual problem-solving in graphic design and continue to develop research skills.

**DES 232 (4) C**  
**Graphic Design V**

Emphasize conceptual approaches to information design, charts and graphs and the design of text-heavy documents such as annual reports.

**DES 233 (4) C**  
**Graphic Design VI**

Design a complete visual identity program for a Greater Seattle restaurant.

**DES 234 (4) C**  
**Graphic Design VII**

Design and produce a corporate identity system including trademark or logotype and applied graphics to a mix of visual business applications.

**DES 235 (4) C**  
**Graphic Design VIII**

Create a self-promotional piece or series in a review of portfolio work conducted by professionals from outside the program. Study basic concepts of exhibit design and design and install the program final portfolio exhibit.

**DES 241 (3) C**  
**Illustration I**

Intro to illustration media and techniques of various media through examinations of the work and process of contemporary illustrators.

**DES 242 (3) C**  
**Illustration II**

Explore humor in illustration in various media and examine the work and process of contemporary illustrators.

**DES 243 (3) C**  
**Illustration III**

Explore the use of the human figure in illustration in various media and examine the work and process of artists as illustrators.

**DES 244 (3) C**  
**Illustration IV**

Explore illustration through digital media including vectors and bitmap programs.

**DES 245 (3) C**  
**Illustration V**

Explore scientific illustration through various media.

**DES 251 (3) C**  
**Multimedia I**

Intro to the practice of web page design as a graphic designer.

**DES 252 (3) C**  
**Multimedia II**

Intro to and practice of two-dimensional animation from the graphic design perspective.

**DES 253 (3) C**  
**Multimedia III**

Further develop skills learned in Multimedia I & II in an independent project of the student's choosing.

**DES 260 (3) C**  
**Portfolio Prep**

Develop, design and prepare a portfolio that represents the student's individual creativity and demonstrates skills for seeking employment in the Graphic Design and Illustration field.

**DES 299 (1-5) C**  
**Independent Study**

Independent study on selected graphic design and illustration topics. Prereq: Permission.

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**GRAPHIC IMAGING AND PRINTING TECHNOLOGY**

*This program is now Publishing Arts, page 281.*

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**HEALTH****HEA 025 (5) S**  
**Health**

Covers physiology for understanding body functioning, including organic and functional disease and disease prevention. Prereq: Appropriate placement on English and Basic Skills tests.

**HEA 125 (5) C**  
**Health & Wellness**

Overview of health as an individual and community-based social construct. Analyzes health determinants and health outcomes as a function of genetics, culture, environment and health behaviors. Emphasizes a holistic model and intellectual inquiry into what constitutes health and well-being. Prereq: MATH 084 and ENGL& 101 or ENG 101.

**HEA 150 (5) N**  
**Health & Human Sexuality**

Covers principles of personality development, body functioning, problems and solutions. Includes human sexuality and family education relating to psycho-sexual development, behavior, problems and solutions.

**HEA 160 (5) S**  
**Human Wellness & Fitness**

Comprehensive study of human wellness. Includes adequate fitness, nutrition, stress management, disease prevention, sexual wellness, spirituality, smoking cessation, substance abuse and weight control.

**HEA 225 (5) C**  
**Global Health**

Examines global patterns of health and disease as a function of economic, social and cultural determinants. Includes measurement of health outcomes, comparative analysis of health care systems, health and disease patterns of epidemiology, transnational disease, health inequalities and major players in global health. Prereq: MATH 084, ENGL& 101 or ENG 101.

**HEA 226 (2) C**  
**Advanced Global Health**

Self-directed study, including research and presentation, of an area of global health. Prereq: HEA 225 or MATH 084, ENGL& 101 or ENG 101 and permission.

**HEA 299 (1-5) C,N**  
**Independent Study**

Independent study in health education. Prereq: Permission.

**HEATING, AIR CONDITIONING & REFRIGERATION DESIGN/ HVAC****HVC 101 (5) N**  
**Essentials of HVAC**

HVAC Learning Solutions course. Covers fundamental principles of heating, ventilation and air conditioning (HVAC). Includes safety, basic refrigeration, electricity, combustion and venting, air distribution and indoor air quality (IAQ).

**HVC 210 (5) N**  
**Cooling & Heating Systems Installation**

HVAC Learning Solutions course. Basic theory and design of heating and cooling systems with an emphasis on the installation of furnaces, air handlers, AC refrigeration, heat pumps, air distribution systems and refrigeration piping. Covers electrical wiring for equipment and control systems. Prereq: HVC 101.

**HVC 211 (5) N**  
**Cooling & Heating Systems Service 1 & 2B**

HVAC Learning Solutions course. Covers the basic theory and design of heating and cooling systems, including furnaces, air handler service and air distribution, AC refrigeration, heat pumps, electrical control subsystems, temperature control, system wiring and motors. Prereq: HVC 101.

**HVC 212 (5) N**  
**Cooling & Heating Systems Service 2A & NATE Preparation**

HVAC Learning Solutions course. Covers the repair and maintenance of cooling systems in air handler service and air distribution, AC refrigeration and heat pumps. Reviews electrical control subsystems, temperature control, system wiring and motors. Prereq: HVC 211.

**HISTORY**

*NOTE: (History 035 - 091 series fulfills high school completion requirements.) Prereq: Appropriate placement on English and Basic Skills tests.*

**HIST 035 (5) S**  
**U.S. History I**

Reviews the significant contributions of the Colonial period, emphasizing political and constitutional developments from the American Revolution through Reconstruction. Emphasis on the Constitution and causes and consequences of the Civil War. Includes contributions and achievements of the Native American population.

**HIST 036 (5) S**  
**U.S. History II**

Covers U.S. development from the Civil War to the present. Includes political, social and economic forces affecting the United States during the period of westward movement, industrialization, world wars, economic growth and world dominance. Covers the profound technological developments of the twentieth century in relation to the world of work.

**HIST 037 (3-5) S**  
**Washington State History**

Covers the historical development of the Pacific Northwest, with emphasis on the development of Washington state. Looks at contemporary, economic, political and social problems.

**HIST 040 (5) S**  
**History Research**

Studies the purposes and methods of historical research including choosing a topic, gathering data, taking notes, writing a research paper, footnoting and developing a bibliography.

**HIST 095 (3) S**  
**History of Asian Immigration to the West Coast**

Covers the major Asian populations who have come to the U.S. and particularly to the Northwest.

**HIST 099 (3) S**  
**Intro to American Civilization**

Intro to American history, government and culture for foreign-born and/or developmental level students. Includes past and present political and cultural aspects. Emphasizes the roots of American democracy and the U.S. system of federal government and their relationship to current events.



**HIST 105 (3-5) C,S**  
**Intro to American Civilization**

Intro to American history, government and culture for foreign-born students. Includes past and present political, cultural and socioeconomic aspects. Emphasis on developing cross-cultural understanding and an appreciation of the diversity inherent in American culture.

**HIST 106 (5) N**  
**Survey of U.S. History**

Survey of American history from pre-colonial to the present with emphasis on political, social, cultural and economic developments.

**HIST 108 (5) N**  
**The World in Evolution to 1500**

Comparative study of the world's major civilizations (African, Chinese, European, Greco-Roman, Indian), with major emphasis on understanding value systems such as Christianity, Hinduism, and Judaism, and their expression in different political, social, economic and cultural-religious systems.

**HIST 111 (5) C,N**  
**U.S. History to 1877**

Reviews U.S. history from the migration of the first Native populations through Reconstruction. Focuses on encounters, territorial expansion and development of political, social, cultural, legal and economic institutions affecting the populations in regions that became the United States.

**HIST 112 (5) C,N**  
**U.S. History Since 1865**

Covers U.S. history from the Civil War to the present. Focuses on industrial and urban development, immigration, race, ethnicity and reform, politics, economics, social change and Americans at war.

**HIST 113 (5) C,N,S**  
**The Colonial & Early Republican Periods**

Study of America in its formative period from its European, African and native pasts, tracing its development from origins to early nationhood. Emphasis on the American Revolution.

**HIST 114 (5) C**  
**Nineteenth Century U.S. History**

Examines changes shaping American society in the 1800s: sectionalism, the Civil War, the westward movement, industrialization and emergence of the United States as a world power. Emphasizes social conflicts, including abolitionism, women's rights, labor, manifest destiny and Reconstruction.

**HIST 115 (5) C,N,S**  
**Twentieth-Century America**

Covers an era of conflict, war, uncertain peace, depression and great social changes. Emphasizes historical, economic, social, racial and political events that have formed the modern U.S.

**HIST 120 (5) C**  
**Survey of History of Africa South of the Sahara**

Surveys the complexity of African societies, including colonialism and its impact, the rise of socialism, cold war and the role of trade, kinship and ancestral spirit in light of the rise and fall of empires in Africa.

**HIST 122 (1-2) C,N**  
**Seattle History – Field Trips**

First-hand view of historic Seattle. Includes lectures and field trips to historic sites.

**HIST& 126 (5) C,N,S**  
**World Civilizations I**

(Formerly HIS 101 - World History to 1500) Reviews the historic foundations and development of the great civilizations from prehistoric days to the Renaissance with emphasis on social, political, cultural and economic aspects. Studies the nature of history and its role as an intellectual and academic discipline.

**HIST& 127 (5) C,N,S**  
**World Civilizations II**

(Formerly HIS 102 - World History 1500-1800) Reviews the foundations of modern civilization with emphasis on the scientific, industrial and political revolutions that have transformed societies. Emphasis on the period of Western Renaissance and resulting cross-cultural contact on a global scale.

**HIST& 128 (5) C,N,S**  
**World Civilizations III**

(Formerly HIS 103 - World History 1800-Present) Study of world civilization during the 19th and 20th centuries. Intro to dramatic events and often-conflicting forces and ideologies affecting contemporary life. Account of modern peoples' solutions to challenges and problems confronting civilization.

**HIST 130 (3) C**  
**History of Broadcasting**

Examines the development of broadcasting in radio and television. Explores the impact of cultural contributions, show business, news, advertising and telecommunications technology. Prereq: Enrollment in Central's Film and Video Communications Program.

**HIST 131 (5) C,N**  
**Asian-American History**

(Formerly HIS 136) Covers the experience of Asians in the United States from the period of immigration to the present. Emphasizes the impact of exclusionary immigration laws and the post-1965 development. Surveys the experiences of the Chinese, Japanese, Filipino, Korean, Asian, Indian and Southeast Asian refugees.

**HIST 138 (5) C,N**  
**Survey of Chicano History**

Surveys Chicano history from the Spanish European background and pre-Columbian civilization of Mexico to the social, economic and political experiences of the Chicano people in the U.S. Emphasis on Mexican history.

**HIST 140 (5) C,N**  
**American Women's History**

Surveys American women's roles, work, status, accomplishments, issues and movements, from the pre-Colonial period to the present.

**HIST 145 (5) C**  
**Women, Race & Class**

Focuses on the United States and its historical stratification by race, sex and class. Examines the experience of women in their own words, with emphasis on women of color. Examines "her story" to help in understanding the conflict facing the women's movement.

**HIST 150 (5) C,N,S**  
**Multicultural Experiences in the U.S.**

Focuses on experiences of selected people of color in America. Emphasizes historical and contemporary development, including sociological and psychological aspects.

**HIST 191 (5) C**  
**Biography in American History**

Examines the place and role of selected figures in the making of American history, not as a search for the hero or heroine, but as an inquiry into the human potential for affecting society in terms of change and development.

**HIST 200 (5) C,N,S**  
**Critical Issues for the 21st Century**

Examines current global issues from global perspectives, using materials from diverse history sources and the research tools of the historian.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**

HIN . . . . . Watch Technology

**NAME TO PREFIX**

Watch Technology . . . . . HIN

**HIST 208 (5) C,N,S**  
**Russian History & Culture**

Focuses on political, cultural and social life, stressing continuity and change from pre-revolutionary Tsarist Russia to the 1990s.

**HIST 210 (5) C,N,S**  
**The Pacific Century**

Study of the transformation of selected Pacific Rim countries and their contributions to the modern world. Emphasis on responses to the problems and challenges of economic, political and social development. Analyzes the impact of China and Japan on the region.

**HIST 211 (5) S**  
**History of the Middle East**

Examines the history of the Middle East (Arab countries, Turkey, Iran and Israel) from the emergence of Islam to the present. Includes cultural, economic and political aspects of history with emphasis on the modern period.

**HIST 212 (5) C,N**  
**Vietnam Era**

(Formerly HIS 215) Reviews American history from 1945 to the present, with special emphasis on the Vietnam war, its origins and its impact upon the American scene. Explores the civil rights movement, the cold war, the role of media, the rise of the "counter-culture," and the development of suburbia.

**HIST& 214 (5) C,N,S**  
**Pacific Northwest History**

(Formerly HIS 264) Surveys history of the Pacific Northwest and Washington state from the earliest times through exploration, settlement and the modern era. Emphasis on the growth of the Northwest in relation to national developments, including ethnic contributions. Includes a unit on Seattle history.

**HIST 218 (5) C,N**  
**Field Trip: Europe**

Take a field trip to Europe to visit historic monuments, cities, castles, museums, churches and other areas relative to studies in the classroom. Average length of experience is three weeks.

**HIST& 219 (5) C,N**  
**Native American History**

(Formerly HIS 137) Traces White/Native American affairs from pre-Colonial America to the present. Probes White attitudes, values and misconceptions as well as Native American values, spiritual beliefs and the continuing struggle for sovereignty.

**HIST 221 (5) N**  
**Sports & Social Change in the 20th Century**

Examines the development of sports and its importance for United States culture and society. Focuses on the struggles of athletes who resisted social restrictions, prejudices, gender and racial segregation and the role of sports in creating the diverse American society of the 20th century. Also explores the interplay between sports and immigration, technology and globalization.

**HIST 230 (5) N**  
**U.S. Environmental History**

From pre-Colombian era to present. Focuses on how different groups of Americans have shaped their environments and on how the environment has shaped cultures, societies and economies in North America from before the arrival of Europeans to the present. Explores how and why attitudes toward the environment have changed. Provides historical context to facilitate understanding debates over environmental issues. Recommended ENGL& 101 eligible.

**HIST 241 (5) S**  
**History of Southeast Asia**

Survey from pre-history to the present of the countries of contemporary Southeast Asia: Brunei, Burma, Indonesia, Kampuchea, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam.

**HIST 242 (5) S**  
**The Vietnamese-American War**

Examines the war in Southeast Asia, 1945-1975, from multiple angles through narratives, perspectives and interpretations of the war. Focuses on themes such as protagonists and victims, concepts of winning and losing, popular re-imagining and memorializing the war.

**HIST 251 (5) N,S**  
**History of China**

Surveys the development of Chinese society from ancient times to the present, including fine arts, literature, religion and thought. Emphasis on the modern period.

**HIST 268 (5) C,N**  
**History of Latin Americas**

(Formerly HIS 268 - The Latin Americas) Covers the development of the Latin American republics, from Indian, European and African foundations through independence and the 20th century. Focuses on social, economic, cultural and political development.

**HIST 269 (5) C**  
**History of the Holocaust**

Interdisciplinary examination of the context and origins of the Holocaust, using history, film/documentaries and voices from the Holocaust. Emphasizes multiple perspectives, including perpetrators, victims, bystanders, resisters and rescuers. Analysis of modern institutions (nation-states, bureaucracies) and ideologies (anti-Semitism, scientific racism, nationalism) illuminates the meaning, impact and legacies of the Holocaust.

**HIST 273 (5) N**  
**Women of the American West**

Examines women of diverse communities in the Trans-Mississippi West in all their different roles from before European contact to the end of the twentieth century. Explores race, ethnicity, class, labor, family, suffrage, politics, social reform, women's groups, arts and entertainment, religion, cultural values and gender identity.

**HIST 298 (1-5) C,N,S**  
**Special Topics in History**

Independent study in selected history topics under faculty supervision. Prereq: Permission.

**HIST 299 (3-5) C,N,S**  
**Special Problems in History**

Small class format to study and discuss selected topics in history. Prereq: Permission.

## HOSPITALITY/FOOD PRODUCTION/CULINARY ARTS

### Specialty Desserts & Breads

• CENTRAL •

**BAK 101 (4) C**  
**Intro to Desserts & Breads (Theory)**

Intro to baking/cooking methods and to the scientific principles used in this field. Covers ingredient responses to temperature, friction and storage; mise en place; ingredient functions and characteristics; tools/equipment; and trade terminology. Includes discussion of yeast doughs, quick breads, syrups, icings, sauces and creams, pastries, pies and tarts, cake mixing and baking. Prereq: Admission to program.

**BAK 102 (3) C**  
**Beginning Desserts & Breads (Theory)**

Presents theory and ingredients, including why specific baking techniques work. Emphasizes the formation and exercise of judgment in baking practice, relationships between procedures and products and evaluation of product quality. Includes discussion of bread history; buttercreams; soufflés and meringues; frozen desserts; chocolate sugar/work; bread and bread sculpture; centerpieces; and wedding cakes. Prereq: BAK 101.

**BAK 111 (6) C**  
**Intro to Desserts & Breads (Practicum)**

Application of baking theory to production. Includes mise en place and preparation of a variety of doughs, breads/rolls, breakfast breads/pastries, cookies, tarts, sponge and tea cakes and decorated cakes. Prereq: Admission to program.

**BAK 112 (8) C**  
**Beginning Desserts & Breads (Practicum)**

Further application of baking theory to production, including exercising judgment and product success/failure analysis. Includes preparation of pastry creams, egg foams, butter creams, tempered and couverture chocolate, marzipan and royal icing, sugar work, meringues, mousses, soufflés, custards, frozen desserts, holiday desserts, compotes, chocolate candies, sauces and fillings. Prereq: BAK 111.

**BAK 113 (8) C**  
**Intermediate Desserts & Breads (Practicum)**

Development of independent bakery skills, including organization, accuracy and communication. Practice discriminatory skills regarding texture, taste and appearance of finished products. Includes preparation using advanced techniques of intricate chocolate work, European cakes and plated desserts, with increased emphasis on presentation and artistic skills. Prereq: BAK 112.

**BAK 123 (2) C**  
**Advanced Desserts & Breads (Theory)**

Design and develop a line of bakery goods. Learn how to purchase goods, inventory goods, calculate cost analysis and develop a bakery line for presentation. Prereq: Permission.

**BAK 124 (8) C**  
**Advanced Buffet Desserts & Wedding Cakes (Practicum)**

Design and develop a line of wedding cakes, show pieces, petits fours and decorative breads using the latest industry techniques. Prereq: Completion of BAK 125 or permission.

**BAK 125 (8) C**  
**Advanced Desserts & Breads: (Practicum)**

Design and develop a line of bakery goods. Purchase and inventory goods and calculate cost analysis as an extension of the class project. Prereq: BAK 113 or permission.

**BAK 200 (1) C**  
**Desserts & Breads Externship Project**

Apply baking principles to operations in a successfully running site. Choose externship sites from a pre-established list including full-service off-site operations, hotels, restaurants, catering and deli/bakery establishments. Prereq: BAK 113.

**BAK 299 (1-5) C**  
**Special Projects, Specialty Desserts & Breads**

Independent study course for individual projects in the desserts/pastry field. Prereq: Permission.

**CUL 106 (1.5) C**  
**Intro to Culinary Arts (Theory)**

Intro to culinary arts. Includes the theory of the various types of moist and dry heat cooking methods; product identification; preparation methods for soups, stocks, sauces, vegetables and side dishes, salads and dressings, hot and cold sandwiches, beverages, and breakfast meats and eggs. Prereq: Admission to program.

**CUL 116 (1) C**  
**Intro to Culinary Arts (Practicum)**

Intro to culinary arts. Hands on application of the various types of moist and dry heat cooking methods; preparation methods for soups, stocks, sauces, vegetables and side dishes, salads and dressings. Rotate into a different kitchen each day, preparing a variety of dishes.

**HOS 106 (1) C**  
**Advanced Bakery Counter Service (Practicum)**

Explains advanced counter service techniques. Includes experiences training beginning students in customer service (pastry sales, general housekeeping and pastry case mise en place); responsibility for daily setup; and supervision of merchandising and product organization. Prereq: HOS 105.

**HOS 201 (2) C**  
**Functions of Management**

Covers management and communication theories and practices within the culinary arts and baking industries. Seminars on current issues: hospitality, Americans with Disabilities Act, sexual harassment and other legal and human resource issues. Covers communications skills, functions of management, beverage management and financial statement analysis. Prereq: Quarters 1-4 of the Specialty Desserts and Breads program.

### Culinary Arts • CENTRAL •

**BAK 105 (1.5) C**  
**Restaurant Baking (Theory)**

For culinary arts students. Expands on science and principles of baking, including yeast doughs and formulas, icing techniques, basic cake types and characteristics of desserts. Prereq: CUL 101.

**BAK 114 (.5) C**  
**Intro to Baking (Practicum)**

For culinary arts students. Intro to production of baked goods. Includes ingredient identification and preparation of quick breads, pies, tarts, cookies, biscuits, muffins, coffee cakes, cornbread and popovers. Prereq: CUL 101.

**BAK 115 (.5) C**  
**Restaurant Baking (Practicum)**

For culinary arts students. Production of baked goods including ganache, custards, creams, puddings, mousses and purees. Prereq: BAK 114.

**BAK 116 (5) C**  
**Fine Dining Baking (Practicum)**

For culinary arts students. Applies baking theory to production of yeast doughs (bread, puff pastry and choux), breads, focaccia, cakes, icings, decorations, mousses, tortes, puff pastries and fine plated desserts. Prereq: BAK 115.

**CUL 101 (6) C**  
**Intro to Professional Cooking (Theory)**

Intro to professional cooking, including food service history, professionalism, kitchen safety, equipment, ratios/weights/measures, pre-preparation, dry vs. moist heat cooking, stock/sauce theory, ingredient identification, knife skills and basic aromatic and flavoring combinations. Prereq: Admission to program.

**CUL 102 (5) C**  
**Quantity Cooking (Theory)**

Continuation of professional cooking, particularly theory relating to quantity food production. Includes trade terminology, heavy equipment, tool identification, mise en place, soups, salads, meats, fish, vegetables, starches, hors d'oeuvres, garnishes and presentation. Prereq: CUL 101.

**CUL 103 (5) C**  
**Restaurant Cooking (Theory)**

Covers restaurant-level professional cooking, particularly menu planning, ordering and preparing/producing complete meals a la minute. Includes restaurant kitchen organization, fresh herb identification, seasonal vegetable/starch identification, market fluctuations/trends, plate presentation, cost control, purchasing, condiment production, menu writing, advanced cooking techniques, advanced fabrication and recipe conversions, requisitions and modifications. Prereq: CUL 102.

**CUL 104 (4) C**  
**International Cooking (Theory)**

Emphasizes international fine dining cooking theory. Includes Latino, Japanese, Mediterranean and other international terminology; extensive nutritional discussion; menu feasibility studies; international ingredient identification; fine dining kitchen organization; international cooking methods; cooking method adaptations; written requisitions; garnitures; advanced plate presentation; advanced cooking methods; menu writing; and recipe studies. Prereq: CUL 103.

**CUL 111 (6) C**  
**Intro to Professional Cooking (Practicum)**

Hands-on intro, includes kitchen safety, knife skills, basic cooking preparations, sanitation/clean-up, stock preparation, meat/poultry/seafood fabrication, inventory, knife sharpening and mock sauce preparation. Prereq: Admission to program.

**CUL 112 (8) C**  
**Quantity Cooking (Practicum)**

Preparation of international cafeteria-style meals. Includes mise en place, item marketing, equipment operation and preparation of meals from the Italian, Asian, Middle Eastern, Mexican, Creole, Indian, French and American traditions. Prereq: CUL 111.

**CUL 113 (8) C**  
**Restaurant Cooking (Practicum)**

Preparation of meals for on-campus restaurant, emphasizing creativity. Includes kitchen rotations, speed/organization emphasis, plate presentation, quality assessments, menu planning, seasonal products and terminology, innovative techniques, flexibility, teamwork, supervision skills, inventory, receiving, distribution, product evaluation, fabrication and preparation of complex soups, sauces, aiolis, dressings, sides and entrees from international and blended traditions. Prereq: CUL 112.

**CUL 114 (8) C**  
**International Cooking (Practicum)**

Preparation of meals for on-campus fine dining room. Heavy emphasis on plate presentation, accuracy, speed, organization, professionalism, work habits, ethnic ingredients, healthy cooking methods, restaurant vs. fine dining kitchen organization, advanced fabrications, garniture and timing. Also covers pasta-making, sushi, tempura, pan-searing, pan-smoking, shallow-poaching and production of fine classical/contemporary Latino, Mediterranean, Japanese and student-created international menus. Prereq: CUL 113.

**CUL 120 (2) C**  
**Intro to Wine**

Covers the fundamentals of grape growing and winemaking, including table, sparkling and fortified wines. Includes sensory evaluation of classic grape varieties and their growing regions with emphasis on Washington state wines. Learn strategies for food and wine pairing. Prereq: Satisfactory completion of four quarters of courses or permission.

**CUL 151 (1) C**  
**Sustainable Food Systems Practices – Part I**

Intro to the current ecological, economical and political issues relating to the food system. Raises awareness of issues of the food system from producer to consumer, exploring agriculture, fisheries, dairy, meat and poultry production, water and waste. Includes trade, health and social justice issues within the food system. Prereq: Admission to program or permission.

**CUL 152 (1) C**  
**Sustainable Food Systems Practices – Part II**

Continuation of CUL 151. Prereq: Satisfactory completion of CUL 151 or permission.

**CUL 153 (1) C**  
**Sustainable Food Systems Practices – Part III**

Covers globalization, food politics, food security, social justice issues, climate change related to the food system, water issues, waste issues, heritage foods, and practical application of ideas in the kitchen. Focuses on local purchasing and navigating the local producer market. Prereq: Satisfactory completion of CUL 152 or permission.

**CUL 200 (1) C**  
**Advanced Culinary Management (Clinical)**

Short, off-campus internship at local restaurant, caterer, hotel or other food service operation, emphasizing the management perspective. Includes on-site diary. Prereq: CUL 104.

**CUL 203 (4) C**  
**Chef of the Day (Practicum)**

Design and full implementation of a self-created menu in one of the on-campus restaurants. Under supervision, students design their own menus and prepare for production, including inventory, requisitions, receiving, costing, recipe development, plate presentation, job descriptions and assignments. Menu production supervised by the student and faculty members. Includes a final portfolio, judged on creativity, outcome and organization. Prereq: CUL 104.



**CUL 251 (4) C**  
**Buffet Catering, Garde Manger & Ice Carving (Theory)**

Floating Summer Quarter class. Intro to buffet, garde manger and ice carving principles. Includes theory discussion of buffet arrangement, garde manger, smoking and ice carving techniques, non-edible displays, aspic/gelee/chaud-froids, garnishes, caviar, forcemeats and pates, cold sauces, charcuterie, foie gras, yeast breads, truffles, terrines, galantines, mousses, cures vs. brines, marinades and recipe studies. Prereq: CUL 101.

**CUL 255 (8) C**  
**Buffet Catering, Garde Manger & Ice Carving (Practicum)**

Floating Summer Quarter class. Intro to ice carvings, buffet items and garde manger. Includes simple and complex salads; dressings; platter presentations, including forcemeat, galantines, mousses and pates; vegetable/fruit garnishes; yeast and quick breads; hot & cold international entrees; pastries, petits fours, cakes and desserts; ice carvings; and food/table arrangements. Prereq: CUL 101.

**CUL 299 (1-5) C**  
**Individual Projects Hospitality & Culinary Arts**

**Hospitality**  
 • CENTRAL •

**HOS 101 (.5) C**  
**Intro to Customer Service (Practicum)**

Application of basic customer service theory in a full service restaurant or pastry case. Includes busing, housekeeping, mise en place for both casual and formal restaurant settings and customer service and sales techniques in bakery counter settings. Prereq: Admission to program.

**HOS 102 (1) C**  
**Customer Service (Practicum)**

Refine customer service skills by further practice in a pastry case or full-service restaurant. Includes dining room arrangement, buffet setup and wait staff duties. In the bakery counter setting, students practice product rotation and merchandising. Prereq: HOS 101.

**HOS 103 (1) C**  
**Table Service (Practicum)**

Acquire expertise in customer service by performing opening/closing procedures, using a variety of service techniques and training bus staff. Prereq: HOS 102.

**HOS 104 (1) C**  
**Tableside Service (Practicum)**

Intro to leadership positions in the dining room. Mastery of French service; exhibition of tableside food preparation and service in a fine dining setting. Encompasses maitre d'hotel duties, supervision of opening/closing, training of wait staff and kitchen liaison duties. Prereq: HOS 103

**HOS 105 (1) C**  
**Bakery Counter Service: Practicum**

For desserts students. Assume responsibility for opening/closing, sales, organization and merchandising of product and training of first-quarter students at a retail pastry case. Pass/fail grade. Prereq: HOS 102

**HOS 106 (1) C**  
**Advanced Bakery Counter Service**

Responsible for daily setup of pastry case. Supervises organization and merchandising of product and assists in training first and second quarter students. Pass/fail grade. Prereq: Satisfactory completion of first three quarters of program.

**HOS 108 (2) C**  
**Dining Room & Kitchen Management**

Covers management and supervision practices within the hospitality and culinary arts industries. Prereq: Completion of Culinary Arts quarters 1-4.

**HOS 109 (.5) C**  
**Advanced Customer Service**

Further exploration of customer service including communication strategies, behavior assessments, complaint resolution, customer characteristics, professionalism, teamwork, buffet arrangements and display of ice carvings. Pass/fail grade. Prereq: HOS 101.

**HOS 110 (3) C**  
**Principles of Sanitation**

Fundamentals of food service sanitation. Includes microorganisms in food spoilage and food-borne illness, ways of limiting microbial contamination and growth during each stage of food preparation and service, creating a clean and sanitary environment, accident prevention and first aid, sanitation in crisis situations and principles of designing safe and sanitary kitchens.

**HOS 122 (1) C**  
**Purchasing & Inventory (Theory)**

Intro to principles of food costing and inventory procedures. Encompasses formal and informal purchasing methods, flow of goods, food buying, legal and ethical purchasing considerations, market analysis, stock rotation, bid specifications, yield and cost comparisons, quality tests and inventory. Prereq: HOS 101.

**HOS 123 (1) C**  
**Food Costing Principles & Application**

Explores connection between profit and food cost; discusses product waste and defines costing terms and purchasing units. Use mathematics skills to make conversions, cost bulk and subrecipes and calculate the selling price of a menu item. Prereq: HOS 101.

**HOS 124 (1) C**  
**Computerized Menu Planning**

Learn computers and word processing programs used to write recipes and menus. Includes basic MS Word skills, layout, design, formatting, grammar and descriptive writing. Prereq: MIC 102.

**HOS 150 (3) C**  
**Measurements & Meanings**

Develop computation skills and use practical application exercises to apply basic mathematical concepts used in the Food Service Industry. Prereq: Program enrollment.

**HOS 197 (1-5) C**  
**Work Experience Hospitality & Culinary Arts**

Cooperative work experience and instruction enables students to earn credits while they work. Helps students develop realistic expectations and a better understanding of the work environment while they acquire industry experience and references.

**HOS 201 (2) C**  
**Functions of Management**

Covers management and communication theories and practices within the culinary arts and baking industries. Includes current issues: intro to hospitality, Americans with Disabilities Act, sexual harassment and other legal and human resource issues. Covers communications skills, functions of management, beverage management and financial statement analysis. Prereq: Quarters 1-4 of Specialty Desserts and Breads or Culinary Arts program.

**Food Production****• SOUTH •****FSD 100 (3) S****Food Safety & Sanitation**

Intro survey for food service students. Covers sanitation guidelines as suggested by the National Restaurant Association's "Service Safe" program. Fundamentals of hazard analysis of critical control point (HACCP) management.

**FSD 101 (3) S****Orientation to Food Production**

Intro to classic cooking, history, terminology, cooking methods, sanitation and safety guidelines, USDA meat identification and use of hand tools. Prereq: Standard entry into Food Science Dept. or permission.

**FSD 102 (5) S****Theory 5**

Front-of-the-house dining room operations, including menu design and layout; business functions for dining rooms and bars; table-side service and merchandising; sanitation and safety; service history and styles; dining room personnel management; and beverage service. Prereq: Permission.

**FSD 103 (5) S****Theory 3**

Survey of food preparation. Covers professionalism, sanitation and safety principles, station assignment within a brigade, marketing of special menus, inventory control, produce specification, purchasing, farinaceous products, hors d'oeuvres, dairy products, salad and salad sauces, storage and usage. Prereq: FSD 102 or permission.

**FSD 104 (5) S****Theory 1**

Survey of food production. Covers USDA beef, veal, lamb and pork specifications, purchasing and usage; fish and shellfish purchasing; yield testing and cost analysis of protein products; proper receiving, storage and issuing procedures for meats and seafoods. Includes sanitation and safety principles and practices. Prereq: FSD 102 and 103 or permission.

**FSD 105 (5) S****Theory 2**

Survey of the principles of food and beverage control procedures for the culinary arts industry. Includes determining standards, forecasting sales, budget generation, controlling sales income, labor costs, techniques for analysis, corrective action and evaluation. Prereq: FSD 102, 103 and 104 or permission.

**FSD 106 (5) S****Theory 4**

Covers theory and application of cold food preparation and display techniques. Includes the art of garde manger; forcemeats, use of gelatin and aspic, pâtés, terrines, galantines and mousse. Covers hors d'oeuvres: finger food, canapés and more. Studies charcuterie: sausage making and the curing of meats. Includes a performance test which requires the application of ACF (American Culinary Federation) standards in order to plan, prepare, assemble and display a culinary salon show platter. Prereq: FSD 102, 103, 104 and 105 or permission.

**FSD 108 (5) S****Operations**

Basic understanding of restaurant operations from a control viewpoint, concentrating on understanding the revenue sources and calculating product cost of each area. Intro to human relations skills and supervisory techniques necessary to function effectively as a supervisor in a business setting. Prereq: FSD 115 or permission.

**FSD 110 (5) S****Food Server 1**

First of three courses covering the complexities of front-of-the-house/food service operations. Use practical dining room laboratory to emphasize tray and arm service, Continental and French service. Stresses terminology, trade terms, sanitation and safety. Prereq: Permission.

**FSD 111 (5) S****Pantry 1**

Basic salad and sandwich preparation for volume operations. Covers fresh produce specifications, storage and usage, sandwich meats and filling, baked goods and garnish, use of cook's knife and vegetable knife, basic vegetable cuts and safety, care and storage of hand tools. Prereq: Current enrollment in Hospitality Production Program.

**FSD 112 (5) S****Food Preparation 1**

Intro to basic quantity cooking. Covers cooking methods; knife and hand tool use, safety and care; production skills for quantity food preparation; and sanitation and safety guidelines. Prereq: FSD 101 or permission.

**FSD 113 (5) S****Purchasing**

Provides opportunity to acquire and enhance human relations skills through interpersonal contact with various individuals in an official capacity. Enhances storeroom inventory management skills through effective purchasing techniques. Prereq: FSD 115 or permission.

**FSD 114 (5) S****Food Server 4**

Provides an orientation to basic understanding of management skills in the food service industry. Emphasis on dining room supervision and special techniques in hostess, reception and cashiering. Prereq: FSD 143 or permission.

**FSD 115 (5) S****Inventory**

Covers skills and responsibilities in storeroom controls: receiving, storage, issuing, inventory management, recipe costing, yield determination, storeroom organization and application and HACCP components. Includes computerized inventory record development in multiple software applications. Prereq: Acceptance into Culinary Arts program or permission.

**FSD 120 (5) S****Short-Order Cookery**

Familiarizes student with short order breakfast and lunch cookery. Covers breakfast egg and meat cookery, hot sandwich and "fast food" production, speed and portion control, station organization and management and sanitation and safety guidelines. Prereq: Permission.

**FSD 121 (5) S****Food Preparation 2**

Intermediate quantity food production, its organization and management. Emphasis on portion control, basic sauce work, meat, fish and poultry production identification and complex quantity food production. Prereq: FSD 112 or permission.

**FSD 122 (5) S****Food Server 2**

For Intermediate Food Servers. Covers flambé and tableside techniques, industry performance and opportunities and continued emphasis on terminology and theory. Uses a luncheon-oriented menu. Prereq: FSD 110 or permission.

**FSD 124 (5) S**  
**Food Preparation 3**

Advanced quantity cookery. Intro to Continental and Classic French culinary methods. Covers organizational and management skills with advanced terminology and production techniques. Prereq: FSD 121 or permission.

**FSD 130 (5) S**  
**Pantry 2**

Advanced pantry and deli preparation and organization. Emphasis on speed skills, quantity production, plate presentation and seasonal production. Practice dining room pantry production. Covers industry guidelines for sanitation and safety. Prereq: FSD 111 or permission.

**FSD 131 (5) S**  
**Restaurant Baking 1**

Intro to a variety of puff doughs, including the assorted methods of mixing, enrobing and folding by hand and machine. Intro to paté a choux, pastry creams, commercial puddings, basic plated desserts, sauces and plate presentations. Prereq: Permission.

**FSD 133 (5) S**  
**Sauce 1**

Basic sauce station production and organization. Intro to basic stocks, foundation sauces, sauce variations and soup formulas. Includes exposure to herb and spice combinations and industry standards for sanitation. Prereq: Permission.

**FSD 134 (5) S**  
**Sauté 1**

Intro to sauté/line station production and organization. Primary sauté skills for meat, poultry, seafood and pasta preparations; pan sauce preparation; use of wine and liquors; plate garnish and presentation. Covers industry sanitation and safety standards. Prereq: Permission.

**FSD 135 (5) S**  
**Restaurant Baking 2**

Intro to basic mixing methods of yeast doughs, preparation of enrobed doughs and shaping of a variety of rolls, basic and specialty breads, breakfast and savory items. Includes understanding of ingredients and their uses, correct scaling, baking, finishing methods and safety and sanitation procedures. Prereq: Completion of Culinary Production Certificate Program (GPA 2.75 or higher) or permission.

**FSD 136 (5) S**  
**Meat Cutting 1**

Intro to basic restaurant trade meat cutting: beef, veal, lamb, pork, poultry and seafood. Covers receiving, storage and processing of produce, yield testing, industry standards of sanitation and HACCP guidelines. Prereq: FSD 104 or permission.

**FSD 137 (5) S**  
**Meat Cutting 2**

Continuation of Meat Cutting 1 with emphasis on portion cutting and specialty meat products. Covers yield testing, cost analysis, meat specification for bid, menu item development and team management skills. Prereq: FSD 136 or permission.

**FSD 138 (5) S**  
**Garde Manger 1**

Exposes the student to cold food preparation and cold food display techniques. Covers pates, terrines, galantines, meat curing and platter presentation.

**FSD 140 (5) S**  
**Food Preparation 4**

Covers classical cuisine methods including advanced hand skills, complex compound entrees and specialty menu items. Explores garde manger work. Continued emphasis on sanitation, safety and organizational skills. Prereq: FSD 124 or permission.

**FSD 141 (5) S**  
**Sauté 2**

Intermediate-level sauté/line preparation and organization. Stresses coordination and speed; complex garnish and sauce-building; sanitation and safety standards. Prereq: FSD 134 or permission.

**FSD 143 (5) S**  
**Food Server 3**

Development of professionalism and management skills. Emphasis on dining room supervision, special techniques in reception and related duties. Prereq: FSD 122 or permission.

**FSD 145 (5) S**  
**Garde Manger 2**

Covers the fundamentals of cold food production and display techniques, including cold hors d'oeuvres (canapés, finger sandwiches and savories); cold set mousses; principles and applications for sausage-making; concepts and application of salt curing and smoking of meats and fish. Applies principles of platter design and buffet setup. Prereq: Current enrollment in Culinary Arts Program.

**FSD 150 (5) S**  
**Sauce 2**

Sauce preparations and soup production. Intro to compound sauces and use of flavor enhancers; national and specialty soups; use of wines and liquors in sauce production. Uses industry standards for sanitation and safety. Prereq: FSD 133 or permission.

**FSD 151 (5) S**  
**Sauté 3**

Advanced sauté/line preparation and organization, with modernization of classical techniques of cooking. Covers plate presentation, garnishes and sauces, station organization and management and industry standards for sanitation. Prereq: FSD 141 or permission.

**FSD 152, 153, 154, 155, 156**

Practical supervisory courses that coordinate student workers in a quantity food preparation environment with specific emphasis on institutional cooking. Demonstrates scheduling, requisitioning of product, purchasing skills, portion control and production skills. Covers supervision of subordinate personnel and training techniques. Prereq: FSD 104 or permission.

**FSD 152 (5) S**  
**Prep Lead****FSD 153 (5) S**  
**Student Lunch Lead****FSD 154 (5) S**  
**Pantry Lead****FSD 155 (5) S**  
**Short Order Lead****FSD 156 (5) S**  
**Sauté Lead****HOS 180 (1-8) S**  
**Field Application**

Provides experience in an occupational setting. Individualized lab hours meet student needs. Credits vary in proportion to the total clock hours. A stipend may be given.

**HOS 203 (3) N,S**  
**Commercial Food Nutrition**

Complete overview of the six nutrient categories — carbohydrates, lipids, protein, vitamins, minerals and water. Practical information on how the body uses nutrients, food sources and alternatives for each nutrient and methods of evaluating nutrition information. Use of the Food Guide Pyramid to evaluate dietary intake. Includes a practical evaluation of nutrition information.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN** . . . . . **Watch Technology**

**NAME TO PREFIX**  
**Watch Technology** . . . . . **HIN**

### Food Production Management • SOUTH •

**FSD 106 (5) S**

**Food Theory VI**

Theory and application of cold food preparation and display. Includes the art of *garde manger*, forcemeats, use of gelatin and aspic, patés, terrines, galantines and mousse. Covers hors d'oeuvres, finger food, canapés and more. Studies charcuterie, sausage-making and the curing of meats. Includes a performance test which requires the application of ACF (American Culinary Federation) standards in order to plan, prepare, assemble and display a culinary salon show platter. Prereq: FSD 102, 103, 104 and 105 or permission.

**FSD 138 (5) S**

**Garde Manger**

Cold food preparation and display techniques. Covers pate, terrines, galantines, charcuterie, meat curing and platter presentation. Prereq: Completion of Hospitality Production Certificate (GPA 2.75 or higher) or permission.

**FSD 144 (5) S**

**Service Lead**

Entry-level supervisory course of dining room service. Covers scheduling of student workers, layout of seating and tableware, marketing of specialty products and receptions. Includes supervision of subordinate personnel and training techniques. Prereq: Completion of Hospitality Production certificate (GPA 2.75 or higher) or permission.

### Pastry & Specialty Baking • SOUTH •

**FSD 139 (5) S**

**Cooking I**

Commercial food preparation for pastry and specialty baking students only. Covers vegetable and starch preparations, main course protein cookery and a la minute preparations. Applies sanitation and safety guidelines. Prereq: Permission.

**FSD 160 (2) S**

**Pastry & Baking Orientation**

Prepares for entry into hands-on pastry courses. Covers trade terminology, overview of the hospitality industry with special emphasis on pastry production, job opportunities, professional organizations and selection and use of tools of the trade. Includes orientation to the program and facility, plus metric and U.S. measurement conversions and calculations. Learn hands-on knife skills and observe demonstration of mixing skills. Prereq: Permission.

**FSD 166 (5) S**

**Bread 1**

First of four modules (two weeks each). Intro to basic mixing methods of yeast doughs, preparation of enrobed doughs and shaping of a variety of rolls, basic and specialty breads, breakfast and savory items. Includes understanding of ingredients and their uses, correct scaling, baking and finishing methods and safety and sanitation procedures. Prereq: FSD 160 or permission.

**FSD 167 (5) S**

**Cookies 1**

First of two modules (two weeks each). Intro to basic mixing methods. Prepare assorted cookie doughs using the one stage creaming, sponge methods. Prepare basic types of cookies and finishes. Includes understanding of ingredients and their uses, correct scaling, baking and finishing methods and safety and sanitation procedures. Emphasizes selection, care and handling of equipment. Prereq: FSD 160 or permission.

**FSD 168 (5) S**

**Cakes 1**

First of two modules (two weeks each). Intro to mixing: two stage, flour batter, sponge, high ration, chiffon, angel food and modified sponge methods. Prepare assorted breakfast items; fill, mask, pour and finish basic cakes and roulades. Understand ingredients and their uses, correct scaling and baking methods. Prereq: FSD 160 or permission.

**FSD 169 (5) S**

**Pies**

First of two modules (two weeks each). Intro to a variety of pie doughs, pie fillings, decorative finishes of single and double crusted pies, baked and unbaked pies, custards, curds, strudels and simple desserts. Prereq: FSD 160 or permission.

**FSD 170 (5) S**

**Cookies 2**

Second of two modules. Covers leadership, organization, scheduling and evaluation of team members and product. Reinforces mixing methods. Intro to advanced preparation of cookies and savory items and piping and dipping skills with assorted mediums. Assist junior team members with ingredients, scaling, baking methods and equipment. Reinforces safety and sanitation practices. Prereq: FSD 167 or permission.

**FSD 171 (5) S**

**Bread 2**

Second of four modules. Practice basic mixing methods of yeast doughs and muffin mixes; preparation of the three enrobed doughs from start to finish, including uniform shaping of individual product. Prepare assorted rolls, breads, muffins, croissants, breakfast pastries and savory items. Understand ingredient functions and characteristics, correct scaling, baking, finishing methods, safety and sanitation procedures. Prereq: FSD 166 or permission.

**FSD 172 (5) S**

**Bread 3**

Third of four modules. Covers mixing assorted yeast doughs and specialty breads. Assist in the preparation of the three enrobed doughs from start to finish, including uniform shaping; assist in preparation of assorted rolls, breads, muffins, croissants, breakfast pastries and savory items while exercising quality and quantity control. Reinforces ingredients, scaling, baking, finishing methods, safety and sanitation procedures. Prereq: FSD 171 or permission.

**FSD 175 (5) S**

**French Pastry 1**

Practical exposure to the fundamentals of assorted enrobed, non-yeasted doughs, basic creams, fillings and cooked doughs (pate a choux). Prereq: FSD 160 or permission.



**FSD 176 (5) S**  
**Dessert 1**

Apply, develop and design basic individual plated desserts. Emphasizes planning, organization, portion control and plate presentation. Prereq: FSD 160 or permission.

**FSD 177 (5) S**  
**French Pastry 2**

Advanced course in basic French pastries. Emphasizes application of different batters and fillings. Develop skills in assembling, producing and decorating classic French pastries. Prereq: FSD 160 or permission.

**FSD 178 (5) S**  
**Decorating 1**

Intro to the techniques of basic cake mixing, filling, assembling, masking, icing and decorating cakes. Covers assorted cheesecake fillings, curds and tarts, along with basic tool handling and piping skills. Prereq: FSD 160 or permission.

**FSD 179 (5) S**  
**Dessert 2**

Practice in designing desserts from basic products to classical dessert variations. Develop skill in the production of complex desserts. Covers numerous plate presentations, portion control and practicality. Prereq: FSD 176 or permission.

**FSD 180 (5) S**  
**Cakes 2**

Second module. Covers leadership, organization, scheduling and evaluation of team members and product. Reinforces mixing methods, ingredients, scaling and baking methods by assisting/teaching junior classmates. Intro to advanced methods in preparation of cakes, quick breads and assembled cake products, including masking and pouring with assorted mediums. Prereq: FSD 168 or permission.

**FSD 183 (5) S**  
**Chocolate 1**

First of three practical chocolate courses. Provides basic knowledge and application of types of couvertures used in the making of assorted "chocolates." Develop skill in basic chocolate decorations and tempering with different methods and learn to cook ganaches, fudges and "candy centers." Prereq: FSD 160 or permission.

**FSD 184 (5) S**  
**Decorating 2**

Review of basic cake mixing, filling, assembling, masking, icing and decorating. Emphasis on more elaborate cakes as well as color application in decoration. Develop greater skills in design composition and pastry bag techniques. Prereq: FSD 178 or permission.

**FSD 185 (5) S**  
**Petits Fours**

Advanced course in creation of petits fours: classic petits fours glace and petits fours sec and contemporary petits fours, using a wide variety of media for composition. Covers skill in filling, assembling, cutting and pouring with assorted mediums while also developing decoration skills. Prereq: FSD 160 or permission.

**FSD 186 (5) S**  
**Bread 4**

Last of four modules. Plan, organize, manage and evaluate a bread team of 4 to 12 junior students. Develop leadership by preparing a daily plan under the guidance of the instructor, then delegate, supervise, evaluate tasks and solve problems as needed. Practice quality and quantity control, reinforce the understanding of ingredient functions and characteristics and assist junior students in correct scaling, baking and finishing methods, safety and sanitation procedures. Prereq: FSD 172 or permission.

**FSD 188 (5) S**  
**Chocolate 2**

Reinforces tempering methods, molding chocolate molds and enrobing assorted candy centers. Develops basic skills for dipping chocolates with emphasis on the creation of chocolate decorations and assorted mediums for the creation of "chocolates." Prereq: FSD 183 or permission.

**FSD 189 (5) S**  
**Decorating 3**

Practical exposure to advanced classical cake batters, specialty fillings and icing mediums. Covers techniques for mixing, filling and icing basic round and square cakes, skills in decoration and pouring methods, basic special event cake orders and practicality in decoration. Prereq: FSD 184 or permission.

**FSD 190 (5) S**  
**French Pastry 3**

Final course in French pastries. Focus on production of basic pastries (required for performance test) and advanced and seasonal pastries using local and regional ingredients. Reinforces skills in production and presentation. Prereq: FSD 177 or permission.

**FSD 191 (5) S**  
**Decorating 4**

Intro to a larger variety of fillings, such as classic European mousses, Bavarian creams and specialty fillings, along with a broader variety of icing mediums and creativity in decoration. Reinforces speed skills, icing and decorating, advanced specialty cake orders and organization of the daily production. Prereq: FSD 189 or permission.

**FSD 192 (5) S**  
**Show Pieces**

Utilizes the mediums from the 7:00 a.m. classes for application in the creation of basic show pieces. Develops planning, assembling and blending of different mediums for larger show pieces. Also covers finishing details and display techniques. Prereq: FSD 160 or permission.

**FSD 193 (5) S**  
**Head Pastry 1**

Organization and running of a basic bakery production lab area with 18-25 junior students. Inventory, order, receive store fresh and dry goods, maintain a par level of ingredients and develop leadership by delegating, supervising, evaluating tasks and solving problems. Emphasis on supervision in production quality and quantity. Reinforces ingredients, scaling, baking, finishing, safety and sanitation. Prereq: FSD 186 or permission.

**FSD 194 (5) S**  
**Head Pastry 2**

Provides management skills and responsibilities in the organization and operation of the annex lab. Emphasis on specialty cake orders, including wedding cakes and applying skills to finishing special orders. Supervise subordinate personnel overseeing the practice of safety and sanitation. Prereq: FSD 193 or permission.

**FSD 195 (5) S**  
**Decorating 5**

Final course in decorating. Continued development of technical skills, speed, organization and leadership skills. Covers customer relations and production of wedding cakes. Includes planning and practicing for the performance test. Prereq: FSD 191 or permission.

**FSD 196 (5) S**  
**Chocolate 3**

Final course on chocolate. Emphasis on leadership and achieving a professional level in the chocolate field. Develops and refines skills and speed. Prereq: FSD 188 or permission.

**FSD 197 (5) S**  
**Dessert 3**

Final dessert course. Emphasis on leadership. Planning of dessert menu for second week with participation of team members. Develops organization and supervision of station. Prereq: FSD 179 or permission.

**HOS 180 (1-8) S**  
**Food Service Field Application**

Applied experience in an occupational setting. Individualized lab hours meet student need, supportive to the field experience. Credit varies in proportion to total clock hours. Stipend for services possible. Prereq: Permission.

**HOS 299 (5) S**  
**Individual Projects Hospitality & Culinary Arts**

Covers general projects related to culinary training as developed by faculty. Prereq: Enrollment in South's Food Science Program (second quarter or higher) or permission.

**Hospitality Management (Bachelor of Applied Science)****• SOUTH •**

*These courses require acceptance into the BAS Hospitality program or permission.*

**HMG 301 (3) S**  
**Intro to Hospitality**

Survey of the various segments of the hospitality industry, including a brief history and current issues, with an emphasis on service.

**HMG 302 (3) S**  
**Hospitality Management**

Survey of management theories, functions, methods, and concepts applied to hospitality settings.

**HMG 303 (5) S**  
**Hospitality Marketing**

Project-based incorporation of theory and practice for an actual business. Includes elements of local store marketing and sales.

**HMG 310 (3) S**  
**Hospitality Computer Applications**

Explores the technology fundamentals and software applications for business functions and management practices.

**HMG 311 (3) S**  
**Lodging Operations**

Study of each hotel department by function and personnel. Presents concepts of yield management and revenue management in depth.

**HMG 312 (3) S**  
**Legal Issues in Hospitality**

Study of liability, dram shop laws, contracts, and innkeeper laws with the purpose of reducing the risk environment for operators.

**HMG 313 (3) S**  
**Entrepreneurship**

Concepts and issues related to new business ventures, including small businesses.

**HMG 314 (5) S**  
**Diversity & Culture in Travel & Tourism**

Learn the cultural principles and practices in domestic and international travel and tourism and the impact on hospitality businesses. Emphasizes diversity.

**HMG 401 (5) S**  
**Cost Controls**

Provides the basics of cost control management in the food and beverage industry within the Hospitality Industry.

**HMG 402 (3) S**  
**Hospitality Accounting**

Explores the use of management tools for creating and analyzing operational effectiveness in the hospitality industry. In addition to credits, successful completion earns widely recognized national certification from the American Hotel and Lodging Association (AHLA).

**HMG 411 (3) S**  
**Human Resources Management**

Policy and practice of human resources utilization: selecting, training, motivating, evaluating and compensating employees; labor relations; EEO legislation.

**HMG 412 (5) S**  
**Services Operations Management**

Design and management of service systems in hospitality operations; control of customer interaction, personnel activities and inventory.

**HMG 420 (3) S**  
**Ethical Leadership**

Nature and sources of ethical conflicts and dilemmas leaders and organizations confront in the hospitality industry.

**HMG 489 (3) S**  
**Professional Career Development**

Preparation for industry employment, resume writing, interview skills, professional dress, business etiquette.

**HMG 490 (3) S**  
**Internship**

Documented 1,000 hours of industry experience.

**HMG 491 (5) S**  
**Hospitality Management Capstone**

Project-based course integrating all components in the curriculum.

**HUMAN DEVELOPMENT****HDC 091 (3) N**  
**Math for Math-Avoiders**

Identify feelings and barriers to learning math. Learn anxiety management, relaxation techniques, test-anxiety and math study skills.

**HDC 093 (2) N**  
**Study Skills**

Increase academic efficiency by learning about motivation, procrastination and memory. Includes note-taking and other skills and strategies for success.

**HDC 096 (3) S**  
**The College Puzzle – Understanding How the Pieces Fit**

Intro to college life to assist individuals in understanding how the academic system works. Develops the basic skills and understanding necessary for active participation in all phases of the college experience.

**HDC 100 (1-3) C,N,S  
Career Planning**

Intro to a systematic approach to help the individual gain a better understanding of self relating to occupational interests and goals. Includes testing and discussions of values, interests and skills.

**HDC 101 (1-3) C,N,S  
Orientation to College Success**

Assists new students in their adjustment to community college. Includes goal-setting, self-motivation skills, identifying college resources, personal development and general study hints.

**HDC 102 (3) C  
College Survival Skills**

Study skills for new/returning students: time management, use of college support services, effective reading and note-taking, writing clarity, memory improvement and successful test-taking. Can be taken in 1-credit modules including: Time Management, Test-Taking, Listening & Note-Taking and Thinking & Reading.

**HDC 103 (3) C  
Self-Awareness Through Critical Thinking & Problem-Solving**

Covers methods of comparison, inference and deduction to solve abstract and practical problems. Sequential steps in the evaluation of people, knowledge and values, in which thinking becomes more complex and less categorical and absolute. Designed to start a reflecting process that helps in understanding how cultural beliefs, attitudes and values affect the way we think.

**HDC 104 (2) C  
Increasing Personal Power –  
Communication & Assertiveness**

Intro to methods of self-expression, listening and response to others. Includes stress-reduction communication methods, active listening, passive listening, body language and conflict resolution. Based on the Wednesday noon Women's Center lecture series. Explores barriers to and sources of women's power.

**HDC 105 (3) C  
Career Assessment**

Career information and personal assessment related to a specific occupation or career. Individual counseling and the development of a specific personal plan for further education or training. May include resume-writing or informational interviewing skills.

**HDC 106 (1-2) S  
Interviewing, Resumes, Job-Hunting &  
Employee/Employer Interaction**

Short, intensive course in creative job-hunting techniques: how to identify personal skills and focus a job search; where and how to look for jobs; how to get hired.

**HDC 110 (3) C  
Pre-Training for High Tech & Trades**

Prep for vocational study. Develop basic skills necessary in technical fields, the trades and other occupations. Includes work on math and technical anxiety, career planning, basic tool and computer use, problem-solving, assertiveness and basic study skills. Prereq: Permission.

**HDC 111 (1) C  
Math Study Strategies**

Provides an opportunity for students to learn and adopt skills and strategies for a successful math experience. Covers knowledge needed to study math, how to discover math learning strengths, how to improve memory, listening, note-taking, reading and test-taking techniques.

**HDC 112 (1) C  
Managing Time & College Expectations**

Develop specific skills to be more successful in college. Focuses on the development of effective time management skills and a thorough understanding of classroom and campus expectations and responsibilities.

**HDC 113 (1) C  
Reading & Textbook Note-Taking Strategies**

Become a self-directed learner for reading and thinking academically and personally. Focuses on the development of practical knowledge and strategies to assist students towards that goal.

**HDC 114 (1) C  
Listening & Lecture Note-Taking Strategies**

Increase listening and lecture note-taking skills.

**HDC 115 (1) C  
Test-Taking Skills & Anxiety Management**

Strategies for effective test-taking and test anxiety mitigation to enhance testing performance and curriculum retention. Includes assessment of personal learning style, test and question types and strategies, study habits and environment, sources of anxiety, reduction strategies, resources and planning for testing.

**HDC 119 (1-3) N,S  
Stress Management**

Focus on changing stressful situations and personal responses to them. Includes time management, cognitive restructuring, health and wellness and relaxation training.

**HDC 120 (3-5) C,S  
Intro to Leadership Theory & Practice**

Theory behind various leadership styles such as situational, multicultural and servant leadership. Options available for student involvement with various student activities and programs or on-campus committees or task forces.

**HDC 121 (2) C,N  
Peer Advising**

Focus on communication skills, problem-solving, interviewing techniques and leadership potential. Upon successful completion of the course, students work in the Advising Center, assisting fellow students in understanding degree and transfer requirements and planning their quarterly programs of study.

**HDC 190 (1-2) C,N  
Women in Society**

**North:** Issues related to women in society and in college. Covers college entry/re-entry, balancing responsibilities, assertiveness and self confidence, overcoming barriers.

**Central:** Lecture and discussion on issues related to women's changing roles in society. Includes speakers from college and community.

**HDC 197 (2-3) C  
Leadership Practice & Application**

Combines student experience such as serving on a college off-campus committee, or active involvement with student organizations or student government with workshops and seminars on leadership and career skills.

**HDC 199 (1-3) C,S  
Independent Study**

Increase success in college through the application of techniques for problem-solving, planning and accomplishing goals. Provides a supportive setting and format for monitoring personal accountability, motivation and achievement. Strengthen critical thinking and leadership skills. Prereq: Permission.

**HDC 200 (1-3) C,N,S  
Orientation to Success in  
the American College**

Provides international students with the knowledge and skills for success in American community colleges.

**HDC 294 (1-2) C**  
**Individualized Career Development**

Designed to help students develop goals by developing awareness of their own patterns of aptitudes, interests and personality traits. Career counseling session, writing assignments, career research and assessment help develop self-awareness through self-evaluation. Independent study with a counselor. Prereq: Counselor's signature.

**HUMANITIES****HUM 104 (5) C,N**  
**Visual Thinking & Communication Skills**

Intro to thinking in images to release creativity; using the right brain in concert with the left brain; the focusing power of relaxed attention; idea sketching to generate, express and record ideas; use of new problem-solving strategies for problems defying usual solutions. Prereq: Placement in ENGL 098 or higher.

**HUM 105/ISP 105 (5) C,N**  
**Intercultural Communication**

Interdisciplinary focus on the role of languages and culture in effective intercultural communication including values, patterns, history and attitudes that create and sustain cultures. Emphasis on skills and empathy gained from the study of diverse cultures through literature, theory and guest lectures.

**HUM 110 (3-5) C,N,S**  
**Intro to Film**

Examines Hollywood film-making as an art form, a business and a shaper of culture. View, discuss and critically analyze classics, features and documentaries for increased understanding of literary and artistic elements. Covers the impact of films on personal experience, American culture and the world.

**HUM 111 (5) S**  
**Critical Thinking & Ethics in the Workplace**

Intro to critical thinking, logic and scientific reasoning with applications to other courses, everyday life and work. Relates directly to the programs of study and future careers of technical education students.

**HUM 112 (5) C,N,S**  
**Responsibilities & Rights in a Free Society**

Examines individual rights and responsibilities in a free society in the practical context of an individual's roles as a citizen and resident of various levels of government, family member and employee or employer. Distinguishes between legally enforceable rights and obligations and the relationship between responsibilities and legal authority. Adds values to the critical thinking process.

**HUM 113 (5) S**  
**Applied Esthetics**

Development of an esthetic approach to technology and the world of work. Explores concepts of quality, beauty, good design and a good work environment from a variety of viewpoints including philosophical, multicultural, psychological, economic and technological.

**HUM 114 (5) S**  
**Life Cycles of Technology**

Provides insights into the nature of the life cycles of businesses, products, materials and processes by using the techniques of research, analysis and writing of history.

**HUM 115 (3) S**  
**Perspectives of the Chinese Garden**

Overview of the history, meaning and significance of Chinese gardens. Covers art, poetry and architecture; language and calligraphy; the influence of Confucianism, Daoism and Buddhism; native flora and geography; plants and their symbolism; principles and styles of Chinese garden design; and the place of the Chinese garden in the world today.

**HUM& 116 (5) C,S**  
**Humanities I**

(Formerly HUM 101 - Humanities in Thought & Action) Covers significant movements in Western culture and values through major works of art, drama, literature, philosophy, music, architecture and language. From historical and political writings, learn of the forces affecting the humanities, from the beginning of civilization to the fall of the Roman Empire.

**HUM& 117 (5) C,S**  
**Humanities II**

(Formerly HUM 102 - Humanities in Thought & Action) Continuation of HUM& 116. Covers the age of Charlemagne to the Enlightenment.

**HUM& 118 (5) C,N,S**  
**Humanities III**

(Formerly HUM 103 - Humanities in Thought & Action) Continuation of HUM& 117, from the French and American Revolutions to contemporary issues. Recommended: Placement in ENGL& 101 or ENG 101 (N).

**HUM 120 (5) S**  
**Intro to Asian Cinema**

An interactive course using Asian Cinema as a looking glass to understand different aspects of the "Human Condition" in Asia. View and discuss movies from Japan, China, Korea, Taiwan and Hong Kong.

**HUM 125 (5) C**  
**Hip-Hop Theory & Culture**

Identifies and critically examines the theoretical foundations of hip-hop culture and rap music, the evolution of hip-hop philosophy and the community from which it originated. Analyzes the influences that the background, music and style of the hip-hop generation have upon a multicultural nation and world. Prereq: ENGL& 101 or ENG 101.

**HUM 149 (2) C**  
**Ways of Learning**

Students study and write about their learning and learning styles. Keep journals, describe and analyze their past, present and planned education. Assess their education in other classes and prepare exit assessment projects.

**HUM 150 (5) C,S**  
**Ways of Knowing**

Students study self-assessment or self-evaluation by writing and talking about their own education. Includes a study of learning styles and an exploration of individual learning styles.

**HUM 160 (5) C,N,S**  
**Asian Written Traditions**

Intro to written traditions in philosophy, religion, history and literature of East and South Asia. Emphasis on original texts in translation in relation to social and cultural background. Recommended: ENGL& 101 or ENG 101 placement.



**HUM 187 (1-3) C**  
**Information Resources in Humanities**

Explores political, economic, and cultural aspects of information related to creativity and intellectual life and the extent to which human expression is affected by the information age. Examines various strategies for identifying, locating, evaluating and applying information resources that affect the human experience.

**HUM 189 (3) C**  
**Using Learning**

Students complete a portfolio project evaluating their own learning, create a product that reflects that evaluation and applies the learning to future goals outside the college.

**HUM 197 (2-12) C**  
**Work Experience – Humanities**

Earn work experience credit in the humanities field. Prereq: Permission.

**HUM 200 (5) C,N,S**  
**Reading the Media**

Examines the way cultural identities are constructed by and represented in contemporary media such as film, television, radio and newspapers. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**HUM 210 (5) N**  
**Gay & Lesbian Studies**

Intro to various complex historical, social and cultural issues surrounding gay and lesbian experience. Multi-disciplinary examination of coming out, gay identity and gay culture, gender issues, bisexuality, transgender identity, AIDS and gay rights. Uses fiction, poetry, autobiography, history, essays and plays. Looks at representations of gays and lesbians in film. Prereq: Placement into ENGL& 101 or ENG 101.

**HUM 234 (5) N**  
**Chinese Society & Thought**

Covers concepts of Chinese civilization from the earliest days to the present. Emphasis on morality-based political philosophy of Confucianism with other conflicting or complementary views of people, nature, society and state.

**HUM 235 (5) C**  
**Holocaust Literature: Voices From the Holocaust**

Examines literature written by survivors of the Holocaust or the Shoah. Read accounts by people who survived to write and publish their memories. Meet one of the authors. Develop an historical context for World War II and the rise of Nazi Germany. Use the context of events to understand the literature.

**HUM 261 (5) N**  
**Japanese Civilization**

Covers the development of Japan as a society and nation including its origins, history, government, literature, economic institutions, material culture, social organizations and religions.

**HUM 270 (5) C**  
**Sequential Art: History & Criticism of Comic Book & Graphic Novels**

Graphic, sequential storytelling offers an attractive and convenient opportunity to study visual language. Surveys the history of comic books and graphic novels, using several theories of visual communication to enhance visual literacy. Study cartoonists' works as channels of human expression and as evidence of changing and differing cultural conditions.

**HUM 289 (5-10) C**  
**Chinese Language Through Experiential Activities**

Self-paced experiential education for undergraduates who plan to take advantage of language study opportunities outside the USA, such as living with a family for total language immersion or attending a language school while studying the local cultures. All course requirements must be completed upon return to the USA.

**HUM 290 (5-10) C**  
**German Language Through Experiential Activities**

*See course description listed for HUM 289.*

**HUM 291 (5-10) C**  
**Spanish Language Through Experiential Activities**

*See course description listed for HUM 289.*

**HUM 292 (5-10) C**  
**French Language Through Experiential Activities**

*See course description listed for HUM 289.*

**HUM 293 (5-10) C**  
**Italian Language Through Experiential Activities**

*See course description listed for HUM 289.*

**HUM 294 (1-5) C,S**  
**Independent Projects in Humanities**

Independent projects based on humanities research. Prereq: Permission.

**HUM 295 (2-5) C**  
**Independent Projects in Humanities (For Teachers Only)**

Curriculum practicum for teachers. Prereq: Permission.

**HUM 296 (2-5) C**  
**Independent Projects in Humanities (For Teachers Only)**

Continuation of HUM 295 or independent curriculum project on a different topic than that studied in HUM 295. Prereq: Permission.

**HUM 297 (5-10) C**  
**Japanese Language Through Experiential Activities**

*See course description listed for HUM 289.*

**HUM 298 (5-10) C**  
**Portuguese Language Through Experiential Activities**

*See course description listed for HUM 289.*

**HUM 299 (1-5) C,N,S**  
**Special Problems in Humanities**

An independent study/research course in the interdisciplinary field of humanities. Prereq: Permission.

**INDUSTRIAL FIRST AID****IFS 100 (2) S**  
**Industrial First Aid & Safety**

Offered at Duwamish Training Center. Covers mandate of Washington State's Workman's Compensation Act to recognize, treat and utilize advanced life support services available to the general public for ill or injured victims. Focuses on safety and prevention of industrial accidents and infectious disease control. Prereq: Covered by Washington State Workman's Compensation Act.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**INDUSTRIAL MANUFACTURING TECHNOLOGY****INT 100 (3) S**  
**Overview of Manufacturing Processes**

Study how machined parts are fabricated. Includes limited hands-on experience on both lathe and milling machines. For Engineering, Drafting and Quality Assurance majors.

**INT 125 (5) S**  
**Electrical Safety**

Covers Federal OSHA and the State of Washington (WISHA) electrical safety standards for general industry. Includes types of hazards associated with electricity, single and three-phase systems, cord and plug connected equipment, hazardous locations and safety-related work practices, and understanding government regulations. Emphasis on electrical hazard recognition and OSHA inspection procedures.

**INT 130 (5) S**  
**Cranes & Material Handling**

Intro to various types of overhead cranes, hoists and powered industrial trucks used in general industry. Covers overhead and gantry cranes, wire rope, slings, crane inspection and maintenance, and operations and maintenance of industrial trucks. Discusses appropriate OSHA and ANSI standards and related requirements.

**INT 155 (5) S**  
**Pipe Fitting & Plumbing**

Intro to the selection and use of pipe and tubing for purpose of supplying air, water, oil and electrical wiring to machinery.

**INT 160 (5) S**  
**Intro to Safety & Health**

Covers both Federal OSHA (29 CFR 1910) and State of Washington (WISHA) general industry standards as they apply to the industrial manufacturing industry. Learn the hazards associated with the manufacturing industry and how to apply industry standards to ensure compliance with the occupational Health and Safety Act of 1970.

**INT 161 (5) S**  
**Applied Industrial Hygiene**

Intro to general concepts of industrial hygiene and sampling techniques. Includes common health hazards such as air contaminants and noise, hazard evaluation through screening and sampling and control methods for health hazards, including ventilation and personal protective equipment. Includes laboratories in the use and calibration of industrial hygiene equipment.

**INT 162 (5) S**  
**Construction Safety**

Covers both OSHA (20 CFR 1926) and the State of Washington (WISHA) construction standards as they apply to construction industry. Learn how to apply these standards to ensure compliance with the occupational Safety and Health Act of 1970.

**INT 197 (1-10) S**  
**Industrial Internship**

Spend time in the field under the guidance of an instructor and/or mentor to learn about operations, policies, procedures, cultures and behavioral standards in a given private or public sector, paid or non-paid. Meet as a group during the internship. May be used as an internship during ongoing program coursework, upon completing the coursework or both. Prereq: Permission.

**INT 210 (3) S**  
**Industrial Ventilation**

Covers principles of industrial ventilation as a means of controlling hazardous air contaminants and both Federal OSHA and the State of Washington (WISHA) ventilation standards as they apply to general industry. Learn the classification of ventilation systems, fundamentals of air flow, make-up air, ventilation systems, surveys and OSHA policy and procedures.

**INT 215 (5) S**  
**Accident Investigation**

Covers industrial safety and health techniques used to conduct accident investigations in an industrial setting. Learn the proper techniques to conduct a complete and accurate investigation.

**INT 220 (5) S**  
**Ergonomics**

Application of ergonomics principles for the reduction of stresses and strains to the employee's body. Includes work physiology, vibrations, anthropometry, cumulative trauma disorders, video display terminals, manual lifting and temperature stress. Includes industrial case studies covering analysis and design of work stations and equipment, laboratory sessions in manual lifting and demonstrations of instrumentation and equipment used in the field of ergonomics.

**INFORMATION TECHNOLOGY**

*Also see Computer Science, Computing Technology and Network Technologies.*

*NOTE: Eligibility for ENGL& 101 or ENG 101 is recommended.*

*Most Information Technology courses require a computer lab fee. Contact the division office for specific fee information.*

**CIS 138 (5) C**  
**UNIX for Network Administration**

Covers the organization of UNIX-based hardware components and software tools used by the host administrator to control access, tune the system and account for system resources used. Covers advanced concepts with multi-user, multi-tasking, time-sharing networked communications, UNIX tools, network schedulers, security, remote access, performance monitoring and networking aspects of UNIX. Examines operational considerations including host initialization, suspension and termination and the system's physical environment. Prereq: ITC 136. May be taken as NET 138.

**CIS 162 (5) C**  
**Java I**

Fundamentals of the Java programming language. Write stand-alone applications as well as Java applets able to run over the World Wide Web. Prereq: ITC 115; ITC or CSC 110 (C).

**CIS 244 (5) C**  
**Intro to Object-Oriented Programming: C++**

Intro to the C++ extensions to the C programming language and to object-oriented programming using C++ classes. Use the C++ capabilities to create object-oriented applications. Prereq: CSC 142 and ITC 115 or permission.

**CIS 290 (1-6) C**  
**Independent Studies or Internship**

Provides advanced students with research opportunities or work experience in computer information systems. Variable credits. Prereq: Advanced standing and permission.

**IT 100 (5) N**  
**Intro to Computer Systems & Networks**

Covers the basics of computers and networks.

**IT 101 (5) N**  
**Software Applications**

Focuses on word processing, spreadsheets, database applications, web security and publishing information on the web.

**IT 102 (5) N**  
**Intro to Programming**

Gain a basic understanding of the programming field. Learn to solve problems through programming logic and design and use efficient troubleshooting techniques to find and correct errors.

**IT 103 (5) N**  
**Intro to Database Use & Design**

Learn Microsoft Access and SQL, the design, creation and use of databases and strategies for keeping data current, accurate and secure. Prereq: IT 100, or EET 131 and IT 101, 102.

**IT 104 (1) N**  
**Using Computers**

Provides current computer and software instruction to enhance the use of technology in a variety of fields. Topics may be chosen to supplement content in another course (creating research papers for English, spreadsheets for Accounting or databases for Allied Health) or to advance the student's own personal technology skills. May be repeated for a total of 5 credits.

**IT 106 (5) N**  
**Intro to Programming**

Intro to problem-solving and programming using the Visual Basic programming language. Covers language syntax, control structures, arrays, file I/O and select GUI objects.

**IT 111 (5) N**  
**Internet & Web Authoring Using XHTML**

Survey of basic Internet services and protocols including HTTP, FTP, email, information searching and security. Intro to HTML and XHTML including text formatting, tables, frames, forms and Cascading Stylesheets with an emphasis on well-formed valid code. Emphasizes setup and maintenance of web-sites and file and directory structure.

**IT 115 (5) N**  
**Intro to Object-Oriented Programming**

Intro to problem-solving and object-oriented programming techniques using the Java programming language. Prereq: IT 106 and IT 111.

**IT 120 (5) N**  
**Network Essentials CompTIA Network +**

Understand local area networking information in Microsoft courses on workstations and networking. Intro to current networking technology for local area networks (LANs), wide area networks (WANs) and the Internet. Prereq: EET 131 or permission.

**IT 122 (5) N**  
**Network OS 1 – Win2K Professional**

Perform post-installation and day-to-day administration tasks in a single-domain or multiple-domain Microsoft Windows 2000 Pro network. Prereq: EET 131, or IT 120, or IT 142 or ITC 140 or permission.

**IT 124 (5) N**  
**Network OS 2 – Win2K Server**

Continuation of IT 122. Provides support professionals with skills to install, configure, customize, optimize, network, integrate and troubleshoot Windows 2000 Pro. Prereq: EET 131 or IT 122 (IT 122 may be taken concurrently) or permission.

**IT 125 (5) N**  
**Using Structured Query Language & SQL Server**

Provides instruction in techniques for creating, modifying, deleting and querying databases using SQL. Focuses on designing and understanding SQL queries using Microsoft SQL Server, although techniques can also be used with other relational DBMS like MySQL, Oracle and Access. Recommended: Work experience or class (such as IT 101) using a DBMS.

**IT 126 (5) N**  
**Network OS 3 – Win2K Network Infrastructure**

Continuation of IT 124. Covers capacity planning, multiple domain management, trust relationships, implementing RAS, interoperating with Novell Netware and Windows 2000 Pro troubleshooting. Prereq: IT 124.

**IT 128 (5) N**  
**Network OS 4 – Win2K Active Directory**

Continuation of IT 126. Provides support professionals with skills to design, implement and support Windows NT Server network operating system in a multi-domain enterprise environment. Examines implementing server directory services, server analysis and optimization, network analysis and optimization and troubleshooting. Prereq: IT 124 or permission.

**IT 134 (5) N**  
**Network Communications – TCP/IP**

Learn to setup, configure, use and support Transmission Control Protocol/Internet Protocol (TCP/IP) on major operating systems used on computers in the networked environment. Prereq: IT 124 (may be taken concurrently) or permission.

**IT 135 (5) N**  
**Unix Operating System**

Intro to the Unix operating system using Linux. Includes the fundamental Unix Commands, the Unix file system, vi editor, Unix shells and shell programming. Strongly recommended: Computer and Windows Operating System experience.

**IT 138 (5) N**  
**UNIX for Network Administration**

Intermediate course. Covers the organization of UNIX-based hardware components and software tools used by the host administrator to control access, tune the system and account for system resources used. Focuses on UNIX tools, network schedulers, security, remote access, performance monitoring and networking aspects of UNIX. Includes multi-user, multi-tasking, time-sharing networked communications and setup and maintenance of an Internet server. Prereq: Instructor permission.

**IT 140 (5) N****Network Management – Unix Shell Scripts**

Applies analysis of current industry standards and occupational analysis to develop content, including Unix host administration with shell scripts and the use of Perl language for administrative functions. Covers basic Internet operations on Unix systems, with a focus on data collection on the World Wide Web. Prereq: IT 138 or permission.

**IT 142 (5) N****Network Management – Cisco I**

Examines current and emerging networking technology for future employment and/or further education. Content standards based on current industry standards. Examines safety, networking, network terminology and protocols, LANs, OSI model, cabling, cabling tools, IP addressing and network standards. Emphasis on decision-making and problem-solving. Prereq: EET 131, IT 122 (may be taken concurrently) or permission.

**IT 144 (5) N****Network Management – Cisco II**

Continuation of IT 142. Covers safety, networking, network protocols, LANs, WANs, Ethernet, LAN switching, router IOS, TCP/IP addressing, router configuration, dynamic routing, static routing and the network administrator's role and function. Emphasizes solving network problems. Prereq: IT 142.

**IT 146 (5) N****Network Management – Cisco III**

Continuation of IT 144. Covers configuring LANs, Novell Networks, Internet-work Packet Exchange (IPX) routing, Interior Gateway Routing Protocol (IGRP), Wide Area Networks (WANs) and network troubleshooting. Covers Integrated Services Data Networks (ISDN), Point-to-Point Protocols (PPP) and frame relay design, configuration and maintenance. Prereq: IT 142, IT 144 or permission.

**IT 149 (5) N****Operating System Security**

Learn to secure critical network systems properly and audit a network to determine where network weaknesses are before an attacker finds them. Study operating system security concepts and techniques and examine theoretical concepts that make the world of security unique. Prereq: IT 124 or IT 138.

**IT 150 (5) N****Network Security Fundamentals**

Provides both Windows and Unix Network Administrators an awareness of security-related issues and the essential skills needed to implement security in such networks. First course in the Security Certified Network Professional Exam. Prereq: IT 122 and IT 138 or permission.

**IT 151 (5) N****Network Defense**

Second course of the first-level certification for the Security Certified Network Professional focused on understanding the architecture for Network Defense. Examines defending the network, including firewalls, intrusion detection systems, analysis of the intrusion signatures, virtual private networking and performing risk analysis. Learn how these technologies may be used to create a layered defense for the network. Prereq: IT 150 or permission.

**IT 154 (5) N****Internet Security Acceleration Server**

Learn to deploy and manage Microsoft Internet Security and Acceleration (ISA) Server in an enterprise environment. Prereq: IT 124 or permission.

**IT 156 (5) N****Designing a Secure Network for a WIN2K Network**

Use Microsoft Windows technologies to design a security framework for small, medium and enterprise networks. Four units describe securing specific areas: for local network users, remote users and offices, between private and public networks and to partners. Prereq: IT 124.

**IT 160 (5) N****Wireless LAN Fundamentals**

For IT professionals in organizations concerned with introducing wireless local area network to their Internet. Addresses the needs of IT program students who require insight into the wireless local area network on existing networks, applications and security.

**IT 162 (5) N****Java I**

Master the fundamentals of object-oriented programming using Java. Write stand-alone console and Swing applications. Translate object-oriented designs into applications. Prereq: IT 115.

**IT 168 (5) N****Graphics for the Web**

Use computer graphics applications to create and optimize images for the web, develop composites for websites and implement complex web layouts. Intro to web graphic file formats, compression, typography and web-safe colors. Covers basic elements and principles of design and uses several industry-standard graphics applications, level tools and techniques. Prereq: IT 106, IT 111.

**IT 172 (5) N****Visual Basic I**

Intro to object-oriented, event-driven programming using Visual Basic.Net. Create stand-alone Windows applications and front ends to databases. Includes effective interface design, VB classes, objects and events, functions and sub procedures, creating multiple form applications, data validation and error handling and debugging techniques. Prereq: IT 115 or permission.

**IT 211 (5) N****JavaScript & DHTML for Web Development**

Learn the use of JavaScript and Dynamic HTML for creating websites. Manipulate and control XHTML pages with JavaScript and Cascading Stylesheets. Build web pages for independent and team assignments, using effective communication and interpersonal skills. Prereq: IT 106, 111 and 168 (IT 168 may be taken concurrently).

**IT 212 (5) N****Web Server Programming Using Databases**

Basic concepts, standards and technologies of web programming. Use server-side scripting for web development. Includes ASP.NET and access to various server side resources, such as databases, via ADO.NET and the server file system. Prereq: IT 115 and IT 211.

**IT 213 (5) N****Advanced Web Development**

Covers development and analysis techniques for web professionals. Work with clients, end-users and information processing professionals to establish user specifications and develop a comprehensive website or add functionality to an existing site. Learn client-side scripting with an emphasis on JavaScript, CSS and DHTML, project management, teamwork site usability, security, administration and maintenance and new technologies. Prereq: IT 140, 162, 211 and 212 (IT 212 may be taken concurrently).



**IT 217 (5) N**  
**Web Services Using XML**

Learn techniques for developing web-based distributed applications using standard languages and protocols such as XML, SOAP, WISDL, WAP, WML. Emphasizes development and use of data-centric Web Services. Manipulate database and XML data. Uses Microsoft's .NET framework. Prereq: IT 172 or IT 212.

**IT 218 (5) N**  
**Managing a Windows Network**

For system administrators, network administrators and IT professionals who implement, manage and troubleshoot existing network and server environments based on the Microsoft Windows platform. Prereq: 122 or permission.

**IT 224 (5) N**  
**Exchange Server**

Intro to Microsoft Exchange Server. Configure an Exchange Server; develop an infrastructure for Exchange server; choose a client installation and integration strategy; develop long-term administration and security strategies; configure message recipients; import directory data; install and configure Exchange Server clients; configure address lists and accounts using the Administrator program; configure message tracking, server locations and security; manage site security, users, distribution lists, the directory and public and private information stores; back-up and restore; configure a link monitor and server monitor. Prereq: IT 124 or permission.

**IT 228 (5) N**  
**SQL Server**

For system administrators to obtain skills to become SQL Server Administrators. Covers installing, configuring and supporting SQL Server; managing storage; setting up user accounts; assigning permissions; transferring data in and out of SQL Server; and diagnosing system problems. Prereq: IT 124 or permission.

**IT 236 (5) N**  
**Database Management**

Includes database concepts, environment, advantages and limitations. Includes data modeling, database design, the relational model, SQL, accessing databases programmatically and implementation of a database design using a relational DBMS. Prepare and present documentation. Prereq: IT 115 and advanced standing in IT program.

**IT 242 (5) N**  
**Cisco CCNP I**

Covers advanced networking skills. Based on current industry standards and occupational analysis. Focuses on advanced routing and uses Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs). Build a scalable routed network. Prereq: IT 142, 144 and 146 or permission.

**IT 252 (5) N**  
**C#**

C# is an object-oriented language built on Microsoft's .net platform and extended from C++. Learn to implement object models and understand capabilities, such as operator overloading, that sets C# apart from other object-oriented languages. Prereq: IT 102 or CSC 110 or previous programming experience strongly recommended.

**IT 256 (5) N**  
**Object-oriented Analysis & Design**

Analyze and develop object-oriented business systems. Get practical experience in planning, analysis, design, test planning, documentation and project management. Become familiar with installation and maintenance issues. Develop object-oriented designs and use diagramming techniques of the Unified Modeling Language (UML) to document the work. Prereq: IT 125 and IT 162, or 272.

**IT 262 (5) N**  
**Java II**

Explore the latest functionality of the Java programming language and new Java packages. Includes servlets, Java server pages, database connectivity, swing, AWT components and Java 3-D modeling. Prereq: IT 162.

**IT 264 (1-3) N**  
**Computer Information Systems Lab**

Supervised information systems development. Increase competency and hands-on skill using appropriate software. May be repeated. Coreq: Enrollment in another IT course.

**IT 272 (5) N**  
**Visual Basic II**

Advanced object-oriented, event-driven programming using Visual Basic.Net. Covers using built-in utility classes, using custom classes and interfaces, inheritance, polymorphism, error handling, database programming, multiple-document interfaces and additional graphical components. Prereq: IT 115 and IT 172 or permission.

**IT 290 (1-6) N**  
**Independent Studies or Internship**

Provides advanced students with research opportunities or work experience in computer information systems. Variable credits. Prereq: Advanced standing and permission.

**IT 296 (1-5) N**  
**Network Technology Internship**

On-the-job training. No compensation is expected. The student is placed with a manufacturer, service company or other work site upon the approval of the instructor, although students may state a preference and/or look for a placement themselves.

**IT 298 (2-5) N**  
**Special Projects for LAN**

Study of topics considered appropriate by the instructor and/or faculty. Course content, format and projects vary. Topics may include Micro-soft Back Office – IIS, Proxy Server, Site Server, Linux system installation and support of various servers.

**ITC 102 (3) C**  
**Information Systems Concepts**

Intro to computers and information systems, including hardware, software, data organization, data communications, systems development and the evolving role of computers in society.

**ITC 110 (5) C**  
**Programming Concepts & Fundamentals**

Intro to basic computing concepts such as Input-Processing-Output, control structures, arrays, structured programming and object oriented programming using Visual BASIC as an example language. Prereq: MIC 101 or equivalent and eligibility for MATH 098.

**ITC 115 (5) C**  
**Intro to C++ Programming**

Intro to the C++ language, emphasizing the use of C++, not just as a "better C", but also as a way of creating less buggy, more maintainable, better-designed programs. Create objects and understand how they relate to classes. Develop C++ code that illustrates practical applications of these concepts. Prereq: ITC 110 or CSC 110 or permission.

**ITC 122 (4) C**  
**Supporting Microsoft Excel**

Covers the common tasks for supporting and troubleshooting Microsoft Excel: organizing a spreadsheet, troubleshooting formulas, creating charts and templates, automating common tasks, using database functions, linking spreadsheets and workbooks, making Excel work with other office programs. Focuses on supporting office staff who use Excel. Prereq: MIC 101 or familiarity with MS Windows and MS Office.

**ITC 134 (5) C**  
**Computer Operating Systems**

Intro to concepts of processes, file systems and structures, software and hardware management, security and user authentication, resource allocation and memory management. Uses WINDOWS, DOS and LINUX operating systems. Prereq: MIC 101, ITC 140 as a prerequisite or corequisite, or permission.

**ITC 136 (5) C**  
**Linux/Unix Operating Systems**

Intro to the Linux/Unix client operating system, including the fundamental Linux/Unix commands in both the command line interface and graphics user interface. Not a Server Administration class. Prereq: MIC 101 with 2.0 or better, or previous computer work, or permission.

**ITC 140 (5) C**  
**Intro to Computer Hardware**

Provides basic understanding of various hardware components, including installation and configuration. Learn how software interacts with and controls the computer's hardware elements. Emphasizes analytical logic, troubleshooting skills and basic networking concepts. Prereq: MIC 101 or ITC 102 or equivalent.

**ITC 150 (5) C**  
**Intro to Information Security**

Learn the foundations of information security and how to protect personal information. Covers laws, ethics, physical security, security policies and social engineering, and hands-on experience with firewalls, virus scanners, encryption and diagnostic tools. Covers digital certificates, authentication and network vulnerabilities. Work with local, Internet and wireless networks. Prereq: WEB 110 or NET 120 or NET 140 with 2.0 or higher or permission.

**ITC 151 (5) C**  
**Intro to Network Security**

Intro to network security, building and administering secure network architectures. Covers firewalls, vulnerability scanners, encryption, risk monitoring and assessment tools, digital certificates, authentication and network vulnerabilities. Security Lab uses wired desktop systems and wireless PDAs to Linux, Macintosh and Windows systems used by small and medium businesses. Prereq: NET 120 and ITC 150 with 2.0 or higher or permission.

**ITC 160 (4) C**  
**PowerPoint Presentations**

Learn to develop effective and professional PowerPoint presentations to the proficient level for the Microsoft Office Specialist (MOS). Prereq: MIC 101 or equivalent.

**ITC 161 (4) C**  
**Supporting Microsoft Word**

Learn to install and troubleshoot and troubleshoot MS Word in a networked office environment. Learn to help employees with tasks ranging from simple how-to questions to complex specialized requests. Includes preparation for the Microsoft Office Specialist (MOS) exam. Prereq: MIC 101.

**ITC 172 (5) C**  
**Visual Basic I**

Intro to object-oriented, event-driven programming using Visual Basic (VB) in the Windows environment. Create Windows applications and write Windows interfaces to existing applications. Study of Visual Basic forms and tools and writing VB code modules, processing and functions. Prereq: ITC 110 or MIC 110.

**ITC 180 (5) C**  
**Use Project Management for Information Technology**

Intro to project management particularly for websites. Prereq: WEB 110.

**ITC 197 (3-5) C**  
**Work Experience**

Earn work experience credit in the computer field. Prereq: Permission.

**ITC 200 (4) C**  
**User Interface Design**

Explores the boundary that exists where man meets machine. Examines the principles of design for understanding and usability and the tension between aesthetics and usability. Learn to present complex functionality in a simplified manner, how to create an understandable and usable look and feel, and the importance of user feedback. Prereq: WEB 110.

**ITC 210 (5) C**  
**Advanced Web Development**

Provides hands-on experience working on a web team with real-world client projects. Offered with WEB 210, ITC 210 students provide the main database and programming skills while WEB 210 students provide the main design and development skills. Prereq: ITC 280 with a 2.0 or higher.

**ITC 216 (5) C**  
**Programming for the Web**

Provides hands-on intro to web programming using PERL. Reviews HTML and client-side language such as JavaScript, to validate and enhance web pages. Intro to server-side programming. Actual programming and scripting languages will remain flexible in order to best reflect current industry usages. Prereq: Web 110 and ITC 110.

**ITC 220 (5) C**  
**Database Development for Programmers**

Overview of database theory and systems. Work with relational databases, simple ADO, SQL and XML. Prereq: MIC 101 and one of these: MIC 110, ITC 110, CSC 110 or permission.

**ITC 222 (5) C**  
**SQL**

Intro to the use of Structured Query language (SQL) to access and summarize database information, create and alter database objects, set constraints and create views. Intro to SQL embedded in programming environments such as ASP or CGI, or Net. Learn to use SQL to create and manage databases on a relational database management system. Prereq: ITC 220 or permission.

**ITC 224 (5) C**  
**Designing Database Solutions**

Explore developing, testing and deploying database solutions. Focus on SQL Server 2005. May change as technologies change. Scenario and case driven. Prereq: ITC 110, 220, 222.

**ITC 226 (5) C**  
**Database Administration**

Provides practice with administrative activities, security and backup on a Relational Database Management System, using Administrative SQL and other tools offered by the Relational Database Management System. Prereq: ITC 222.

**ITC 255 (5) C**  
**Systems Analysis**

Identify when a system needs to be upgraded or replaced. Analyze system components and requirements, charting process flow and data structures, determining feasibilities and providing alternate solutions. Prereq: MIC 101 or knowledge of MS Windows and MS Office. Recommended: ITC 110 or CSC 110.

**ITC 280 (5) C**  
**Web Database**

Intro to the skills, tools and techniques needed to create database-driven websites and practical experience. The languages and methods used for database access will remain flexible to account for the most current industry standards. Prereq: WEB 110 with 2.0 or higher. Recommended: ITC 110.

**ITC 281 (5) C**  
**Advanced Web Databases**

Intro to advanced web development and database topics such as XML, RSS and AJAX. Prereq: Completion of first year of A.A.S.-T. degree.

**ITC 285 (5) C**  
**Capstone Project Class**

Produce a major project that responds to a client problem or request. Work in teams or carry out an individual project as an intern/extern. Select and work closely with industry mentors. Emphasis on research, accuracy, technology skills, timeliness, teamwork, quality, client/customer satisfaction and usability. Prereq: Completion of first year of A.A.S.-T. degree.

**ITC 298 (1-5) C**  
**Special Topics**

In-depth studies in new and emerging technologies relevant to the IT programs. Prereq: Permission.

**MIC 101 (4) C**  
**Intro to Microcomputer Applications**

Intro to microcomputer applications for Windows. Includes an overview of Windows, the Microsoft Office System featuring Word, Excel, Access, PowerPoint, Internet Browsers, email, along with emerging software application topics and concepts.

**MIC 102 (1) C**  
**Using Computers**

A series of one-credit short classes which provide a brief hands-on intro to one type of commonly used industry software using both PC and Macintosh. Attendance mandatory and additional 2-4 hours per week required during Computer Center hours. Lab fee.

**MIC 103 (3) C**  
**Intro to Computers on the Macintosh**

Intro to basic personal computer hardware and software concepts as they apply to business transactions and the building trades. Prereq: Permission.

**MIC 104 (2) C**  
**Using Computers II**

Covers an in-depth exploration of computer topics considered appropriate by the instructor and/or division. May be chosen to supplement content in another course. Class format may vary.

**MIC 105 (2) C**  
**Using Computers**

Intro to Windows-based computers. Covers the operating system, email, word processing, spreadsheets and Internet browsing programs.

**MIC 106 (5) C**  
**Intro to Software Applications for K-12 Educators**

Covers the use of essential software applications for teaching in a K-12 classroom. Provides a practical understanding of the computer, the Internet and varied software applications to successfully teach and manage instruction in varied environments. Provides a strong technology foundation.

**MIC 110 (4) C**  
**Program Design & Development in Visual Basic**

Intro to concepts involved in planning, developing, testing and debugging a computer program. Intro to programming language and principles of structured programming that can be applied to any programming language. Prereq: MIC 101 or equivalent or programming experience.

**MIC 115 (5) C**  
**Intro to Programming Using Microsoft Visual Basic**

Intro to basic programming design and techniques via online instruction and online interaction with instructor. Prereq: MIC 101 or equivalent experience

**MIC 120 (4) C**  
**Database, Applications & Design with MS Access**

Develop database application and design skills through use of MS Access. Emphasizes planning, creating and revising a database system. Prereq: MIC 101 or equivalent experience.

**MIC 130 (3) C**  
**Digital Imaging**

Learn the use of digital imaging and illustration software on the Macintosh. Emphasizes creating and editing images for use in video and exporting to animation and nonlinear software packages.

**MIC 131 (3) C**  
**Nonlinear Editing**

Learn to use a nonlinear editing system. Prereq: MIC 130 or equivalent.

**MIC 141 (3) C**  
**Computer Applications for Apparel Design I**

Provides a basic understanding of various computer applications, ranging from word processing to graphic manipulation and their specific use in the field of apparel design. Complete fundamental tasks and learn selected advanced skills in each program.

**MIC 142 (3) C**  
**Computer Applications for Apparel Design II**

Build on skills using Macintosh and/or PC computers to develop an understanding of computer procedures, terminology and practical skills related to Apparel Design.

**MIC 150 (4) C**  
**Internet & The World Wide Web**

Intro to the global information network. Provides experience using browsers, email, search engines and other Internet and web tools. Focuses on finding valuable information and resources on the Internet. Understand the process of creating a web presence including basic HTML and web page editing tools.

**MIC 151 (5) C**  
**HTML & Web Page Development**

Intro to Hypertext Markup Language (HTML) and web page development. Includes implementing HTML tags and files; learning common web page formats and functions; and developing and installing comprehensive websites. Prereq: MIC 101 or MIC 150, or equivalent experience.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN** . . . . . **Watch Technology**

**NAME TO PREFIX**  
**Watch Technology** . . . . . **HIN**

**MIC 160 (4) C**  
**Supporting Microsoft Applications**

Provides essential technical support skills to end users of essential Microsoft applications in both technical and non-technical environments. Prepare to take Microsoft Office Systems (MOS) exam at proficient level, a frequent job requirement. Prereq: MIC 101 or permission.

**MIC 170 (5) C**  
**Microsoft Word**

A complete look at Microsoft Word, focusing on features for technical writing, management, editing and formatting long documents. Prereq: MIC 101 or equivalent experience.

**MIC 203 (3) C**  
**Intro to Computer-Aided Drafting & Design (CADD)**

Intro to computer-aided drafting and design on the personal computer. Use the 2-D tools in MiniCad for basic technical drawing to produce depictions of simple plans, elevations and construction details in a CADD environment. Prereq: MIC 103 or permission.

**MIC 204 (3) C**  
**Computer Aided Drafting & Design II (CADD)**

Advanced techniques in CADD including file structures and dynamic drawing mechanisms. Prereq: MIC 203 or permission.

**MIC 215 (4) C**  
**Intro to Dreamweaver**

Online course. Access online discussion board, lecture board, quiz and file sharing tools. Intro to Macromedia Dreamweaver, the most widely used software for web page development used by professionals and hobbyists. Create simple web pages as well as dynamic and comprehensive websites. Prereq: MIC 101 or equivalent.

**MIC 241 (3) C**  
**2D & 3D Animation**

Learn to create animations. Covers 2-D animations and intro to 3-D animation concepts. Prereq: MIC 130.

**MIC 260 (4) C**  
**Microsoft Office Systems (MOS): Expert Level**

Provides preparation and practice for students planning to take the Microsoft Office Systems (MOS) Certification Expert Level test. Graded Pass/Fail. Prereq: MIC 101 or permission.

**MIC 298 (3-5) C**  
**Advanced Applications Project**

Apply skills and knowledge to a major programming project that responds to a client problem or request. May work in teams or carry out an individual project as an intern/extern. Select and work closely with industry mentors. Emphasis on research, accuracy, programming skills, timeliness, teamwork, quality, client/customer satisfaction and usability. Prereq: Completion of first year of A.A.S. degree in Programming.

**WEB 105 (3) C**  
**Working on a Web Team**

Provides an overview of different web-related careers focusing on the structure and function of the players in a web team. Covers the skills and daily responsibilities associated with each position, as well as the training and background needed. Prereq: MIC 101, 150 or equivalent.

**WEB 110 (4) C**  
**Web Authoring I**

Covers the mechanics of web page production starting with absolute basics. Covers document structure, text elements, list elements, links, tables and working with images and creating framesets. Focuses on creating HTML files "by hand" with emphasis placed on browser compatibility issues and HTML/XHTML validation. Prereq: MIC 101 or computer experience.

**WEB 112 (3) C**  
**Typography for the Web**

Intro to the elements of typography as applied to the Web. Prereq: WEB 110 or equivalent.

**WEB 114 (3) C**  
**Photoshop for the Web**

Gain insight and skill with Adobe Photoshop for Macintosh. Covers the basic concepts of pixel-based image editing and making graphics for the web. Prereq: WEB 110.

**WEB 120 (4) C**  
**Web Authoring II**

Covers more advanced elements of web page development and production. Includes style sheets, designing and coding "oof" forms, XHTML and an intro to XML. Code elements by hand and create content compatible with all major browsers. Prereq: WEB 110 or permission.

**WEB 130 (3) C**  
**Web Design with Dreamweaver**

Covers basic to advanced features of Dreamweaver. Plan, build, upload and maintain a professional website using Macromedia's Dreamweaver. Prereq: WEB 120. Knowledge of writing JavaScript is helpful.

**WEB 150 (3) C**  
**Intro to JavaScript**

Studies programming concepts and techniques affecting web page design. Examines theoretical concepts that make the world of JavaScript programming unique. Uses a hands-on approach when examining programming styles. Examines different coding, the advancement of programming and problem-solving strategies. Prereq: WEB 110 or permission.

**WEB 160 (4) C**  
**Writing for the Web**

Covers the solid writing skills essential for successful electronic media. Intro to writing and editing techniques with emphasis on the Web. Analyze successful websites, newsletters and online publications; learn to create compelling, reader-friendly content. Emphasizes teamwork with editors, designers, producers and other content creators. Prereq: WEB 120 or permission.

**WEB 170 (3) C**  
**Web Animation Using Flash**

Learn and practice digital 2-D animation to increase skills as a web designer. Prereq: WEB 120 and knowledge of writing JavaScript is helpful.

**WEB 200 (3) C**  
**Theory of Web Design**

Overview of basic principles and practices of professional website design, including navigation, color and typography. Prereq: WEB 110 or permission.



**WEB 205 (2) C**  
**Web Career Strategies**

Presents various tools and skills needed to transition into the web industry. Learn about web careers, presenting skills and finding appropriate positions. Prereq: ITC 200 and WEB 210 or permission.

**WEB 210 (5) C**  
**Advanced Web Design**

Focuses on using HTML for website design including principles of graphic and information design and effective website navigation, as well as advanced HTML features such as cascading style sheets and JavaScript (DHTML). Develop a website in teams and practice web production workflow. Prereq: WEB 120 and WEB 150 or permission.

**INTERNATIONAL STUDIES**

**ISC 197,198,199 (2-5) C**  
**Intercultural Studies Internship**

The intern develops knowledge about the country being visited, which may cover a brief history, major political institutions, major celebrations/holidays, including social and political institutions. Also, writes description of the internship as it relates to an education career. Could include exploration through informational interviewing, observations, readings and special topic research.

**ISP 101 (5) N**  
**The Global Society**

Intro to the globalization of cultures and societies in producing the current world system. Includes human interaction, social institutions, social stratification, socialization, deviance, social control, social and cultural change within the context of international inequality.

**ISP 105 (5) C,N**  
**Understanding Intercultural Communications**

Interdisciplinary focus on the values, patterns, history and attitudes that create and sustain cultures; emphasis on skills and empathy in intercultural communication gained from study of diverse cultures through literature, theory and guest lectures.

**ISP 110 (5) N**  
**Intro to Global Studies**

Intro to living in an interdependent and interconnected world, including the diversity in the world's biophysical landscape and examination of human inter-connectedness through time and space. Includes major global issues and problems such as migration, food and hunger and environmental pollution and development. Explores cultural diversity and unity at global, regional and national levels.

**ISP 112 (5) C,N**  
**The Contemporary World**

Intro to the nation-state system, elements of power and major problems facing nation-states today, including population, hunger, nuclear proliferation, energy, nationalism and North-South/East-West relations. May be taken as POLS 112.

**ISP 120 (5) S**  
**Intro to Scandinavian Culture**

Intro to Scandinavian culture, with an overview of the geography, heritage and history of the members of the Nordic Council: Denmark, the Faroe Islands, Finland, Greenland, Iceland, Norway, Sweden and Aland. Also covers Estonia.

**ISP 160 (5) N**  
**Asian Written Traditions**

Intro to written traditions in philosophy, religion, history and literature of East and South Asia. Emphasis on original texts in translation in relation to social and cultural background. Recommended: ENGL& 101 or ENG 101 placement.

**ISP 170 (5) N**  
**Intro to Contemporary China**

Multi-disciplinary survey course on the people, history, culture and socio-economic political systems of Chinese society. No prior knowledge of Chinese civilization or language is required.

**ISP 201 (5) C,N,S**  
**Intro to International Political Economy**

Studies international political economy through facets/events of post-World War II era. Covers postwar changes leading to the creation of international financial institutions, rise of MNCs, emergence of the United States as a major power, globalization of production debt crisis and structural adjustment policies. Emphasis on Asian Pacific, South Asian, Sub-Saharan African and Latin American countries.

**ISP 205 (5) C,N,S**  
**Women in the Global Context**

Interdisciplinary intro to the study of women in Asia, Africa, Latin America, the Middle East and/or indigenous women in some Western societies. Explores commonalities and differences among women in various societies and cultures. Specific societies or regions covered vary by instructor.

**ISP 210 (5) N**  
**The Pacific Century**

Study of the transformation of Pacific Asia and its contribution to the modern world. Emphasis on responses to problems and challenges of economic, political and social development. Attention to impact of China and Japan on contemporary Pacific Asia.

**ISP 220 (5) N**  
**World Hunger**

Comprehensive information about world food situations and the problem of hunger using an ecological/food system approach. Analyzes various components of the food system to identify causes of hunger. Examines acute, chronic and hidden hunger and evaluates proposed strategies using scientific measures as well as the voices of people.

**ISP 234 (5) N**  
**Chinese Society & Thought**

Covers concepts of Chinese civilization from the earliest days to the present. Emphasis on morality-based political philosophy of Confucianism with other conflicting or complementary views of people, nature, society and state.

**ISP 251 (5) N**  
**History of Chinese Civilization**

Development of Chinese society from ancient times to the present, including philosophy, literature, fine arts, religion, foreign relations, science and technology.

**ISP 255 (5) C,N,S**  
**History of the Art of Asia**

Survey course of the paintings, sculpture, architecture and crafts of India, China, Japan and Southeast Asia. Studies influences brought about through invasion, assimilation and transformation of Hinduism, Buddhism, Daoism and Confucianism as reflected in the arts, history and culture.

**ISP 260 (5) N****World Migration**

Study of human migration in time and space including pre-colonial, colonial and current transnational migrations. Examines causes of voluntary and involuntary migration and their impact on economic, social and cultural aspects of peoples lives. Covers how migration led to the formation of diasporas in different parts of the world. Studies recent trends in return migration among the Peruvian Japanese, Caribbean and Irish Americans and others.

**ISP 261 (5) N****Japanese Civilization**

The development of Japan as a society and nation including its origins, history, government, literature, economic institutions, material culture, social organizations and religions.

**ISP 270 (5) S****Contemporary Scandinavian Society**

Examines the distinctive policies, institutions and social norms of contemporary Scandinavian or Nordic societies: Denmark, the Faroe Islands, Finland, Greenland, Iceland, Norway, Sweden and Aland. Also covers Estonia.

**ISP 293 (5) N****Global Studies Projects & Practicum (Pacific Asia)**

Intro to and experiential knowledge of the people, history, culture and economic development in Pacific Asia. Field trip to selected Pacific Asian countries, lecture, on-site assignments and pre- and post-trip classroom work.

**INTERNATIONAL TRADE****IBN 203 (3) N****International Trade: Export**

Learn to conduct a successful exporting operation. Study research and planning, market strategy, finance, legal considerations and logistics of entering foreign markets. Develop skills and knowledge in practical aspects of exporting products and services.

**IBN 205 (3) N****International Trade: Import**

Learn to conduct a successful importing operation. Study financing, pricing, logistics and U.S. customs regulations. Develop skills and knowledge in practical aspects of importing products through case study analysis.

**IBN 225 (3) N****Global Logistics**

Intro to international logistics and logistics management. Emphasizes the decision-making process, including the role of logistics in the firm and in the international environment; sourcing materials and manufacturing; product distribution, inventory/warehousing issues; distribution alternatives, transportation, financial and organizational considerations; and the impact of government-imposed laws, treaties and policies.

**INTERPRETER TRAINING****SPS 201 (5) C****Survey of Hearing Impairment**

Basic anatomy and physiology of hearing mechanisms. Covers causes and types of treatment for hearing loss, both past and present. Also includes assistive technical devices, an intro to the measurement of hearing and a survey of the role of genetic hearing loss in deafness. Lab included.

**ITP 115 (3) C****Survey of Interpreting**

Overview of the field of interpretation. Includes history, terminology, competencies, professional ethics and environmental factors. Prereq: Acceptance into the ITP program or permission.

**ITP 119 (4) C****Deaf-Blind Interpreting**

Covers specialist skills necessary for Deaf-Blind interpreting. Emphasizes cultural norms and etiquette, tactile modifications of ASL, commonly used communication modes, interpreting visual information and environmental considerations for the interpreter through interactive instruction, simulations, guided practice, blindfold experiences and guest presentations by Deaf-Blind people. Includes field work/lab. Prereq: ASL& 221 or ASL 201 with 2.5 or better or demonstrated equivalent proficiency.

**ITP 145 (3) C****Ethics of Interpreting**

Exploration of how values, character and skills in interpersonal relations are developed. Includes discussion of the applications of the RID Code of Professional Conduct to different interpreting situations. Prereq: ASL& 223 or 203 with 2.5 or higher or demonstrated equivalent proficiency.

**ITP 160 (4) C****ASL-to-English Interpretation I**

Intro to interpretation from ASL to English in the consecutive mode. Application of the Gish approach to information processing. Studies dual task performance, short-term memory building, paraphrasing skills, shadowing techniques and other pre-interpretive skills. Prereq: ASL& 223 or ASL 203 with a 2.5 GPA or higher. Coreq: ITP 161.

**ITP 161 (4) C****English-to-ASL Interpretation I**

Taken concurrently with ITP 160. Develop cognitive skills in translating from English to ASL in the consecutive mode. Emphasis on vocabulary development and ASL expressions. Prereq: ASL& 221 or 201 with a 2.5 GPA or higher or demonstrated equivalent proficiency. Coreq: ITP 160.

**ITP 162 (4) C****ASL-to-English Interpretation II**

Continuation of ITP 160 with interpretation of increasingly complex discourse. Gradual shift from consecutive to simultaneous interpretation. Prereq: ITP 160 with a 2.5 GPA or higher or permission. Coreq: ITP 163.

**ITP 163 (4) C****English-to-ASL Interpretation II**

Continuation of ITP 161. Increases fluency, facility and stamina, with increased difficulty of text, discourse and vocabulary from English to ASL in the consecutive mode. Prereq: ITP 161 with a 2.5 GPA or higher, or permission. Coreq: ITP 162.

**ITP 164 (4) C****ASL-to-English Interpretation III**

Continuation of ITP 162 with interpretation of increasingly complex discourse in the simultaneous mode. Demonstrate proficiency in interpreting ASL to English. Prereq: ITP 162 passed with 2.5 GPA or higher, or permission. Coreq: ITP 165.

**ITP 165 (4) C****English-to-ASL Interpretation III**

Continuation of ITP 163. Interpretation of increasingly complex discourse in simultaneous mode from English to ASL. Prereq: ITP 163 passed with a 2.5 GPA or higher, or permission. Coreq: ITP 164.

**ITP 216 (3) C**  
**Interpreting Specialized Settings**

Intro to specialized settings within the field of interpretation. Covers basic vocabulary, ethical considerations and general issues involved with professional areas of interpretation, including mental health, medical, legal, educational (K-12), substance abuse programs, performance and religious settings. Prereq: Completion of ITP 260 with 2.5 or higher or permission.

**ITP 217 (3) C**  
**Professional Entry Preparation**

Prepares students for immediate entry into the world of professional interpreting. Includes creating business documents, professional certification, developing a professional interpreting portfolio, techniques for solving ethical and practical problems that occur in everyday interpreting, needs and requirements of potential employers, accessing referral agencies and networking with future colleagues. Prereq: Permission. Coreq: ITP 255.

**ITP 245 (4) C**  
**Applied Interpreting Experience I**

Covers various models and experiences of interpreting required for functioning as professional interpreters. Observe working interpreters in field settings and apply skills with student partners in mock situations. Prereq: 2.5 or higher in previous ITP courses.

**ITP 246, 247 (1-5) C**  
**Applied Interpreting Support**

Continued development of interpreting techniques with practical experience for students in mock interpreting field placements. Prereq: Completion of ITP 260 and 245 with a 2.5 or higher, or equivalent with permission.

**ITP 250 (4) C**  
**Applied Interpreting Experience II**

Continuation of ITP 245 with same distribution of the required 80 hours. Apply interpreter knowledge and skills to real-life situations. Prereq: ITP 260 and 245 with 2.5 GPA or higher or equivalent with permission.

**ITP 255 (4) C**  
**Applied Interpreting Experience III**

Continuation of ITP 250 with same distribution of the required 80 hours. Prereq: ITP 250 with a 2.5 or higher or equivalent with permission.

**ITP 260 (4) C**  
**Interpreting IV**

Build further interpreting skills by using increasingly challenging material. Continue to increase stamina and duration of interpreting, facility with receptive and expressive finger spelling and use of idioms. Learn appropriate feedback and self-assessment techniques. Prereq: ITP 164 and ITP 165, with a 2.5 GPA or higher, or permission.

**ITP 261 (4) C**  
**Interpreting V**

Continuation of ITP 260 with increasing complexity of discourse with a focus on dialogues, ASL story-telling and sign music. Prereq: Completion of ITP 260 with a 2.5 GPA or higher, or permission.

**ITP 262 (4) C**  
**Transliteration**

Intro to transliteration. Covers contact varieties of ASL used in transliteration. Establish a foundation for transliteration. Pass/Fail grade. Prereq: ITP 261 with 2.5 or higher or permission.

**ITP 299 (1-5) C**  
**Independent Study**

Selected topics in interpreter training. Complete a mutually-agreed-upon research project assigned by the appropriate supervising faculty. Prereq: Permission.

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**ITALIAN**

*see Languages & Literature, see page 252.*

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**JAPANESE**

*See Languages & Literature, see page 252.*

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**JOURNALISM**

**JRN 100**  
See CMST& 102.

**JRN 101 (5) C,S**  
**Media Writing**

Covers newsworthiness, sources, news gathering techniques (beat, interview, observation, research); writing and editing stories for newspaper, radio and television; law and ethics; influence on society; and values.

**JRN 102 (2-4) S**  
**Newswriting**

Continuation of JRN 101. Emphasis on special assignments such as feature writing and in-depth reporting. Prereq: CMST& 102 or JRN 101 or permission.

**JRN 103 (4) S**  
**News Editing**

Editing of news copy for publication: headline writing and layout. Prereq: JRN 102 or permission.

**JRN 104 (1-5) C,S**  
**College Publications**

Intro to newspaper production. Includes writing, editing and layout. Examine current newspapers and produce news and feature articles. Prereq: JRN 102, or another news-writing course, or permission (S); ENGL& 101 or ENG 101 eligibility (C).

**JRN 105 (1-5) C,S**  
**College Publications**

Covers college publishing. Includes basics of advanced reporting and writing through work on college newspaper and other assignments. Prereq: JRN 104 or another newswriting course and mastery of basic news reporting techniques.

**JRN 106 (1-5) C**  
**Publications Leadership**

Advanced practicum on the student newspaper, arranged by contract. Focus on skills and responsibilities required of editorial or management positions (editor-in-chief, copy editor, business manager) for college newspapers.

**JRN 199 (1-5) S**  
**Independent Study in Journalism**

Internship on a professional publication through arrangement between editor and journalism instructor, or management position on college publication. Prereq: CMST& 102 or JRN 101 and 104, plus permission.

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**LANDSCAPE HORTICULTURE****LHO 100 (1) S**  
**The Landscape Industry**

Survey of the landscape industry. Learn about career opportunities, work and training requirements, trade organizations, certificate programs, opportunities for continuing education and related four-year degree programs.

**LHO 105 (3) S**  
**Landscape Design Basics**

Explore the basics of design, then apply them to a residential or commercial setting. Develop skills in drafting and drawing, plant placement and aesthetics. Present the finished product to your peers. For both landscape professionals and home owners.

**LHO 108 (2) S**  
**Weed Identification & Management**

Explore weed biology, become familiar with various weed management strategies (cultural, biological, chemical) and understand how to apply an integrated approach to weed management. Helps prepare for the weed section of the WSDA pesticide license exam.

**LHO 109 (3) S**  
**Integrated Pest Management (IPM)**

Learn the basic principles of integrated pest management (IPM). Covers pesticide laws, pesticide health and environmental concerns and development of an IPM plan. Prepares students for the Washington State Department of Agriculture pesticide license exam.

**LHO 111 (3) S**  
**Greenhouse Operations**

Intro to greenhouse operations and management, including production practices, maintenance methods and environmental control systems. Involves propagation and maintenance in the campus greenhouse. Includes industry overview through field trips to local production greenhouses.

**LHO 112 (3) S**  
**Nursery Operations**

Examine the world of retail and wholesale nursery operations through field trips to local nurseries. Learn the basic methods of business operations and apply them in the campus retail garden center.

**LHO 115 (3) S**  
**Fall Plant Identification**

Gain a new appreciation of the plants around us. Learn to identify and properly use ornamental shrubs, trees, vines and ground cover adapted to the Pacific Northwest.

**LHO 116 (3) S**  
**Winter Plant Identification**

Learn about conifers adapted to the Pacific Northwest landscapes and broadleaf plants that provide special winter interest: flowers, fragrance, attractive bark and fruit.

**LHO 117 (3) S**  
**Spring Plant Identification**

Identify and properly use broadleaf evergreen and deciduous woody plants adapted to Pacific Northwest landscapes.

**LHO 119 (3) S**  
**Native Plants for Northwest Landscapes**

Explore the successful use of native plants in landscapes: plant identification and culture, native plants in urban landscapes, native plant revegetation and plant ecology.

**LHO 120 (3) S**  
**Herbaceous Plant Identification**

Identify and properly use plants adapted to and utilized for annual perennial plantings in the Pacific Northwest. Field trips to established gardens. Recommended: LHO 150.

**LHO 121 (4) S**  
**Landscape Design I**

Intro to drafting skills and working knowledge in residential landscape design. Includes drafting techniques, lettering, line work, graphics, scale work, developing a plot plan, orthographic and isometric drawings and creating a residential planting plan.

**LHO 125 (4) S**  
**Landscape Design II**

Covers principles of art and their application in the plan, including composition to create a sense of unity between all elements. Emphasis on spatial understanding, aesthetic and functional use of plants and trees and the historical background of the landscape arch. Includes study of the complete design program from client interview to final working drawings. Prereq: LHO 121.

**LHO 135 (3) S**  
**Intro to Irrigation & Drainage**

Study basic principles of hydraulics, drainage and irrigation systems, irrigation fixtures and apparatus.

**LHO 137 (3) S**  
**Landscape Management**

For designers, contractors and maintenance personnel who must understand landscape management operations. Covers turf management, hand tool and small equipment operation, maintenance practices, safety, environmental issues and the impact of design on maintenance requirements.

**LHO 140 (3) S**  
**Intro to Arboriculture**

Intro to the current science and practice of managing trees in urban landscapes. Prepares students for the ISA Certified Arborists Examination.

**LHO 150 (2) S**  
**Horticulture Science I**

Discover the basic principles of plant anatomy, physiology, adaptations, control of growth and development, plant-soil-water relations and ecological considerations. In two quarters.

**LHO 151 (2) S**  
**Horticulture Science II**

Exploration and discussion of plant-soil-water relations, metabolism, control of growth and development, plant adaptations, ecology and environmental considerations. Emphasizes group research project involving an environmental topic related to horticulture industry. Prereq: LHO 150.

**LHO 152 (3) S**  
**Soils**

In-depth study of soil properties, management and conservation. Emphasis on plant-soil relationship, evaluation of urban soils and use of appropriate soil amendments. Includes overview of inorganic and organic fertilizers.

**LHO 155 (3) S**  
**Pruning**

Covers the art and science of pruning in theory and practice. Develop skill at pruning broadleaf trees and shrubs, conifers, fruit trees, vines and roses.

**LHO 160 (2) S**  
**Garden Renovation**

Learn by renovating an existing garden. Includes site assessment, developing a timeline, removal and handling of materials, sourcing new plant material, installation and final evaluation of the process.

**LHO 165 (1) S**  
**Measuring a Landscape Site**

Review or learn how to measure a landscape site and convert your measurements into a base map. For landscape professionals and homeowners.



**LHO 166 (1) S**  
**Color Theory**

Learn the basic vocabulary of color to enhance garden design. Develop skills in plant combinations and aesthetics focusing on color theory and create planting combinations. Prereq: LHO 121, 125 or permission.

**LHO 189 (3) S**  
**Intro to Landscape Construction**

Intro to the standards and procedures of the industry. Covers the proper and accepted methods of a multitude of landscape installations. Includes construction specifications, project sequencing and safety practices.

**LHO 197 (variable) S**  
**Internship**

Provides practical work experience and employment contacts by integrating academic studies with on-the-job training. Orientation to internships required prior to registration. Prereq: Permission.

**LHO 201 (1) S**  
**Career Coaching**

Successfully transition from training into a career. Work with an industry professional on portfolios, job-hunting strategies and presentation/interviewing skills. Prereq: LHO 100.

**LHO 210 (3) S**  
**Plant Problem Diagnostics**

Diagnose and manage plant problems: insect, disease, cultural and environmental maladies. Stresses a total plant health care approach that utilizes cultural, biological and chemical strategies. Prereq: LHO 109 or permission.

**LHO 215 (3) S**  
**Plant Propagation**

Covers the art and science of plant propagation by seed, cuttings, division and grafting. Includes field trips to plant production facilities. Recommended: LHO 111 or permission.

**LHO 217 (2) S**  
**Plant Propagation Workshop**

Continue to explore propagation and refine skills. Follow plant materials propagated in LHO 215. Work on production of specific species and quantities for sale in the campus retail garden center. Prereq: LHO 215 or permission.

**LHO 221 (3) S**  
**Turf Identification & Physiology**

Study turf grasses and weed grasses. Learn how use affects lawn types. Covers turf grass plant parts, root and shoot growth, plant metabolism, germination and seedling development. Learn how environment and cultural practices affect visual and functional quality of turf grasses.

**LHO 222 (3) S**  
**Turf Fertility**

Covers nutrient requirements of turf, reading fertilizer labels and calculating costs. Take and interpret soil tests, write a fertilizer program and diagnose basic nutrient deficiencies. Study how fertilizers interact with soils and affect microbial activity. Learn application techniques, calibration, leaching and environmental factors.

**LHO 223 (3) S**  
**Sports Turf Pest & Disease Management**

Learn to identify pests and diseases common to sports turf in the Pacific Northwest. Explore appropriate pest management practices. Emphasizes safety and legal responsibilities associated with pest management on sports turf.

**LHO 236 (4) S**  
**Advanced Irrigation**

In-depth study of systems and their relationship to our environment focusing on irrigation technology and theory and practical application. Prereq: LHO 135 or permission.

**LHO 238 (3) S**  
**Maintenance Estimating & Bidding**

Covers estimating material cost and quantity for bidding individual jobs and annual contracts. Includes design of efficient residential and commercial landscapes. Prereq: LHO 137 or permission.

**LHO 250 (3) S**  
**Small Business Management for Horticulture**

Covers organization and operation of horticulture-related small business: success and failure factors, capital sources, record-keeping, interpretation of financial statements, taxation, credits and collections, legal problems, management principles, proprietorships, partnerships and corporations.

**LHO 262 (4) S**  
**Landscape Design III**

Refines the design process through a step-by-step problem-solving method. Emphasis on organization of outdoor spaces for use and enjoyment. Explores field of "hardscaping" and covers refining construction drawings to scale. Prereq: LHO 121 and 125 or permission.

**LHO 264 (4) S**  
**Landscape Design IV**

Covers elevation, sectional and perspective drawing. Prereq: LHO 125 or permission.

**LHO 265 (3) S**  
**Landscape Contracts & Specifications**

Covers practical application of bidding and estimating procedures and techniques within the landscape industry, as well as industry opportunities and standards. Prereq: LHO 189 or permission.

**LHO 266 (4) S**  
**Landscape Design V**

Refines the residential design process, reviewing sectional, elevation and perspective drawings with an emphasis on specifications and estimation. Focuses on designing "outdoor rooms" and theme gardens. Prereq: LHO 121, 125, 262 and 264 or permission.

**LHO 267 (3) S**  
**CAD for Landscape I**

Provides experience in designing landscapes, generating planting plans and reports, irrigation design, estimates and bids, supplier and purchasing information and customizing data libraries and client reports using the computer and professional software. Prereq: PC operation, file management and Windows.

**LHO 268 (3) S**  
**CAD for Landscape II**

Continuation of LHO 267 to enhance design skills by creating land and area symbols, elevation drawings, customizing supplier and purchase information, customizing plant and hardscape libraries, creating customized reports and irrigation designs. Uses professional software. Prereq: LHO 267.

**LHO 272 (4) S**  
**Landscape Construction Project – Fall**

Practical application of standard landscape contractor's trade procedures and techniques to enhance the residential landscape. Covers equipment and tool care, safety and usage. Prereq: LHO 189.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**

HIN . . . . . Watch Technology

**NAME TO PREFIX**

Watch Technology . . . . . HIN

**LHO 273 (4) S**  
**Landscape Construction Project – Spring**

Application of standard trade procedures/techniques for residential landscaping. Covers care and safe use of tools used in garden structures and in trade. Prereq: LHO 189 or permission.

**LHO 276 (1) S**  
**Designing with Native Plants**

Create garden vignettes using a native plant palate for different effects and types of cultural conditions. Some knowledge of Northwest plants is helpful; this is a design class, not a plant identification class. Prereq: LHO 119 or permission.

**LHO 299 (2-4) S**  
**Special Topics**

Special individual or group study topic in the landscape horticulture field. Prereq: Permission.

**LANGUAGES & LITERATURE**

*NOTE: All listed world languages transfer to four-year colleges and universities. Students intending to transfer should be aware of differing world language requirements and consult with an advisor regarding requirements at specific colleges and universities.*

*The faculty recommend that students entering a world language 101 class have attained Eligibility for ENGL& 101. For information, contact the Humanities Division (N), Humanities & Social Sciences Division or Health & Human Services Division (ASL only) (C), or College Transfer Division (S).*

**American Sign Language**

**ASL 104 (5) C**  
**ASL Skills Enhancement**

Maintain or increase skills learned in ASL& 121, 121 and 123 (Formerly ASL 101 – 103). Performance will be videotaped for critique. Gain exposure to a variety of signing styles. Prereq: ASL& 123 or ASL 103 with a 2.0 GPA or higher or permission.

**ASL 120 (5) C**  
**Intro to Deaf Studies**

Overview of the treatment and psychological aspects of Deafness; history and education of Deaf people; and Deaf culture.

**ASL& 121 (5) C,N**  
**American Sign Language I**

(Formerly ASL 101 – First Year ASL) Continuation of ASL& 121 to build mastery of ASL grammar skills, increase vocabulary, and gain a deeper knowledge and appreciation of Deaf culture. Prereq: ASL& 121 or ASL 101 with a 2.0 or higher or permission.

**ASL& 122 (5) C,N**  
**American Sign Language II**

(Formerly ASL 102 - ASL II) Continuation of ASL& 121 to build mastery of grammar skills, increase vocabulary, and gain a deeper knowledge and appreciation of Deaf culture. Prereq: ASL& 121 or ASL 101 with a 2.0 GPA or higher or permission.

**ASL& 123 (5) C,N**  
**American Sign Language III**

(Formerly ASL 103 - ASL III) Continuation of ASL& 122 with focus on grammatical features such as spatialization, directionality, and non-manual components. Intensive work in vocabulary development and continued study of Deaf culture. Prereq: ASL& 122 or ASL 102 with a 2.0 or higher or permission.

**ASL 125 (5) C**  
**American Deaf Culture**

Covers discussion of Deaf people as a culture, a group of people held together by strength of culture rather than disability, Examines Deaf minorities and current issues in the field.

**ASL 132 (4) C**  
**Fingerspelling & Numbers Culture**

Emphasis on receptive and expressive fingerspelling and number use within a range of contexts. Learn strategies for maintaining uninterrupted language flow. Prereq: ASL& 223 or ASL 203 or ITP 165 with 2.5 or higher or permission.

**ASL& 221 (5) C**  
**American Sign Language IV**

(Formerly ASL 201 – ASL IV) Emphasis on expressive skills development and ASL fluency. Attention to the correct formation of signs, movement, rhythm, phrasing, linking, and clarity, intensive vocabulary building and proficiency in ASL grammar. Prereq: ASL& 123 or ASL 103 with a 2.0 or higher or permission.

**ASL& 222 (5) C**  
**American Sign Language V**

(Formerly ASL 202 – ASL V) Continued development of receptive and expressive skills. Produce/receive narratives at a near-native level and decrease dependency on English syntax structures. Prereq: ASL& 221 or ASL 201 with a 2.0 or higher or permission.

**ASL& 223 (5) C**  
**American Sign Language VI**

(Formerly ASL 203 – ASL VI) Continue vocabulary development and participate in most formal and informal conversations on general topics. At this level signing errors seldom interfere with understanding and rarely disturb native signers. Prereq: ASL& 222 or ASL 202 with a 2.0 or higher or permission.

**ASL 299 (2-10) C,N,S**  
**Independent Study for ASL**

Independent study of selected topic(s) in ASL. A mutually desirable research project is assigned by faculty.

**Chinese**

**CHIN& 121 (5) C,N,S**  
**Chinese I**

(Formerly CHI 101 – Elementary Modern Chinese) Intro to the standard language, emphasizing correct pronunciation and basic structure, with oral practice and structure skills. Emphasis on systematic study of the phonetics (Pinyin) and basic grammar. Covers everyday expressions and vocabulary, and background on history, culture and customs. Intended for students who have not previously studied Chinese. Recommended: Eligibility for ENGL& 101 (C).

**CHIN& 122 (5) C,N,S**  
**Chinese II**

(Formerly CHI 102 – Elementary Modern Chinese) Continuation of CHIN& 121. Prereq: CHIN& 121 or CHI 101 or permission.

**CHIN& 123 (5) C,N,S**  
**Chinese III**

(Formerly CHI 103 – Elementary Modern Chinese) Continuation of CHIN& 122. Prereq: CHIN& 122 or CHI 102 or permission.

**CHIN& 221 (5) C,N,S**  
**Chinese IV**

(Formerly CHI 201 – Second-Year Chinese) Continuation of CHIN& 123. Emphasizes using Chinese language in speaking, listening, reading, writing and translation. Prereq: CHIN& 123 or CHI 103 or permission.

**CHIN& 222 (5) C,N,S**  
**Chinese V**

(Formerly CHI 202) Continuation of CHIN& 221. Studies similarities and differences between Chinese and English. Prereq: CHIN& 221 or CHI 201 or permission.

**CHIN& 223 (5) C,N,S**  
**Chinese VI**

(Formerly CHI 203) Continuation of CHIN& 222. Use of Chinese in varied social settings. Includes writing academic papers and researching in Chinese. Prereq: CHIN& 222 or CHI 203 or permission.

**English:  
 High School Completion**

**ENGL 040 (5) S**  
**Composition I**

Assessment and development of skills in language and communications including spelling, vocabulary, grammar and usage in a pre-technical career-oriented context. Emphasizes sentence and paragraph development to describe situations, objects and basic processes. Prereq: Appropriate testing and counseling.

**ENGL 041 (5) S**  
**Composition II**

Assessment and development of language skills and communications skills in a pre-technical career-oriented context. Emphasizes paragraph and multi-paragraph writing and revision in various formats and purposes. Research paper or project relating to educational or career opportunities. Prereq: Appropriate placement testing and counseling.

**ENGL 042 (5) N,S**  
**Composition III**

Assessment and development of language and communications skills in academic and career contexts. Analysis of models of effective writing and speaking. Research paper or project on career-oriented topic integrated with a personal, historical, technical or sociological perspective. Prereq: Appropriate placement testing and counseling.

**ENGL 045 (5) S**  
**Literature II – World Literature**

Survey of English literature through reading and discussing novels, essays, poetry and drama. Studies author's purpose, style and point of view.

**ENGL 046 (5) S**  
**Literature III – American Literature**

Survey of the American heritage through its literature. Includes reading and analysis of fiction, poetry and drama. Write book reviews, biographical sketches and interpretations of characters or verse.

**English: Pre-College**

*Designed to help students improve their reading, writing, thinking and study skills. For information about courses, contact the following offices: North - Humanities Division (206-527-3709) or Testing Office (206-527-3674); Central - Testing Office (206-587-6913); South - College Transfer (206-768-6600). Instructors will recommend the next appropriate course for students who complete a course in developmental English.*

**ENGL 070 (3) S**  
**Intro to Transitional English**

Development of basic skills required for vocational/technical communications. Using computers to organize, write and edit technical communications. Take concurrently with ICT 098.

**ENGL 080 (1-5) C,N,S**  
**English Skills Shop**

Individual and small group study to improve listening, speaking, study skills, reading comprehension and rate, vocabulary, phonics and word skills, spelling, grammar, writing sentences, paragraphs and essays. Prereq: Permission or placement; consult college testing office. Does not replace an ENGL 090-level class but may be taken concurrently with an 090-level classes.

**ENGL 081 (1-5) C,S**  
**English Skills Shop**

Continuation of ENGL 080. Prereq: ENGL 080.

**ENGL 082 (1-5) C,S**  
**Writing Skills II Prep**

Continuation of ENGL 081. Prereq: ENGL 081.

**ENGL 084 (2-5) S**  
**Spelling & Vocabulary**

Improving vocabulary through study of prefixes, suffixes, roots, context clues and essential vocabulary words; improving spelling through practice and study of spelling rules and patterns.

**ENGL 086 (5-10) N,S**  
**Grammar & Punctuation I**

Open to native and non-native speakers of English. Emphasis on basic sentence-level grammar: prepositional phrases, subject-verb identification, conjunction and sentence types. Practice in thinking, writing, proofreading and editing. Prereq: Placement into ESL 096/7 or higher or placement on English placement test or teacher recommendation.

**ENGL 088 (5) S**  
**Grammar & Punctuation II**

Open to non-native speakers of English only. Intensive study of clauses and reduced clauses (noun, adjective, adverb), form and usage as well as participle forms. Prereq: ESL 096/7 or higher or placement on English placement test or teacher recommendation.

**ENGL 090 (2-5) S**  
**Independent Study of Basic English**

Addresses individual learning needs of students in college preparatory reading or writing skills. Credit awarded according to students' mastery of various skills as determined by the successful completion of material specified by the instructor.

**NOTE: Prerequisite for ENGL 091 through 099**  
*Appropriate placement on English placement test or permission (N).*

*Appropriate placement; contact the Testing Office (S,C).*

**ENGL 091 (3-5) C,S**  
**Basic Reading & Study Skills I**

Covers essential reading and study skills. Includes techniques for developing good reading skills and habits, vocabulary, comprehension, textbook reading and classroom skills. Prereq: See above.

**ENGL 092 (3-5) C,S**  
**Basic Writing Improvement I**

Emphasis on the sentence. Includes basic sentence grammar and practice in thinking, writing, editing and proofreading. Prereq: See above.

**ENGL 093 (3-5) C**  
**Reading & Study Skills II**

Development of college reading and study skills. Includes strategies for taking lecture notes, studying for exams, improving memory and reading comprehension and participating in small group discussions. Prereq: See previous page.

**ENGL 094 (3-5) C,S**  
**Writing Improvement II**

Emphasis on paragraph structure and basic sentence grammar. Practice in thinking, writing, editing and proofreading. Assignments in writing clear sentences and paragraphs. Prereq: See previous page (S). For students who have completed ENGL 092 but still need more work at that level (C).

**ENGL 095 (3-5) C,N,S**  
**College Preparatory Reading & Study Skills III**

Emphasis on increasing reading speed and vocabulary, identifying the main idea and supporting ideas in expository reading, making inferences and evaluations and understanding figurative language. Includes study strategies for test-taking, note-taking and outlining. Prereq: See previous page.

**ENGL 096 (3-5) C,N,S**  
**College Preparatory Writing III**

Build writing skills through clear, correct sentences, well-developed paragraphs and coherent short essays. Prereq: See previous page (C,N); ENGL 094 or ESL 095 or permission (S).

**ENGL 097 (3-5) C,N**  
**College Preparatory Reading IV**

Increase general knowledge of fiction and non-fiction through concepts and vocabulary needed to interpret, appreciate and respond to a wide range of reading selections. Prereq: See previous page.

**ENGL 098 (3-5) C,N**  
**College Preparatory Writing IV**

Emphasis on writing skills for essays or longer papers. Practice in collecting, shaping, revising, editing and proofreading papers. Includes grammar, punctuation and other skills needed for effective writing. Prereq: See previous page (N). For students who have completed ENGL 096 but still need more work at that level (C).

**ENGL 099 (5) N**  
**College Preparatory Writing V**

Emphasis on writing skills for longer, more fully developed essays. Practice in collecting, shaping, revising, editing and proofreading papers. Includes some review of grammar, punctuation and other skills needed for effective writing. Prereq: See previous page.

**English: College Level****ENGL& 101 (5) C,N,S**  
**English Composition I**

(Formerly ENG 101 – Composition) Intro to the writing process. Writing assignments focus on non-fiction prose, with subject matter drawn from first-hand experience and observation. Prereq: Satisfactory performance on English placement test.

**ENGL& 102 (5) C,N,S**  
**Composition II**

(Formerly ENG 102 – Composition) Continuation of the composition sequence with further instruction and practice in the writing process, concentrating on critical reading and writing techniques needed for the preparation and completion of documented essays. Prereq: ENGL& 101 or ENG 101.

**ENGL 103 (5) S**  
**Transitional English**

Improvement of skills required for professional/technical communications. Assessment of reading, writing and oral improvement. Use of computer to teach principles of organizing, drafting and editing technical reports. Prereq: Satisfactory performance on English placement test.

**ENGL 104 (5) C,N,S**  
**Advanced English Grammar**

Study of rhetoric and grammar of the English sentence. Includes sentence structure, grammar of the paragraph, usage, diction and mechanics. This course is not remedial. Prereq: Eligibility for ENGL& 101 or ENG 101 or permission.

**ENGL 105 (3) C,S**  
**Applied Composition**

Covers skills and strategies needed to meet writing demands in college and on the job. Prereq: Satisfactory performance on English placement test.

**ENGL 106 (3) C,S**  
**Technical Writing**

Writing strategies geared to target audiences. Emphasis on research and problem-solving requiring critical reading and writing; development of ideas and argumentation. Includes layout and design, use of illustration, schematics and mathematics. Prereq: ENGL 105 or permission.

**ENGL 108 (3) S**  
**Technical Report Writing**

Technical writing for the professional or student. Covers technical communication skills needed in industry. Provides examples of written or oral presentations typically required in a technical work setting. Prereq: ENGL 106.

**ENGL 109 (5) S**  
**The Art of Reading**

Offers a variety of experiences in college-level reading with emphasis on the critical analysis of works selected from across disciplines. Develop a strategic approach to efficient reading and active learning.

**ENGL& 111 (5) C,N,S**  
**Intro to Literature**

(Formerly ENG 135) Study and analysis of fiction, poetry and drama with emphasis on understanding the art and techniques of each genre. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL& 112 (5) C,N,S**  
**Intro to Fiction**

(Formerly ENG 132) Survey of 20th century fiction. Study and analysis of the art, elements, and techniques of short stories, novellas, and novels of American and international authors. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**ENGL& 113 (5) C,N,S**  
**Intro to Poetry**

(Formerly ENG 131) Study, appreciation and analysis of the form, meaning, music and metaphor of poetry. Includes poems from diverse sources. Prereq: Placement into ENGL& 101 or ENG 101 or permission (N).

**ENGL& 114 (5) C,N**  
**Intro to Drama**

(Formerly ENG 133 – Intro to Dramatic Literature) Study and analysis of great works of the theater, including major themes and trends of playwrights from the Greeks to the present. Prereq: Placement into ENGL& 101 or ENG 101 (N).



**ENGL 117 (5) C****American Dialects**

(Formerly ENG 114) Survey of the contributions other languages and dialects have made to American English, its make-up and creative communicative dynamics.

**ENGL 150 (3-5) C****Writing for the Media - Scriptwriting**

Creating stories and characters and scripting them for video productions. Prereq: Computer literacy.

**ENGL 151 (5) C,N,S****Creative Writing**

Reading and writing fiction, poetry and drama with focus on development of character and voice and emphasis on effective elements and techniques. Prereq: ENGL& 101 or ENG 101 or permission.

**ENGL 152 (5) C,N,S****Creative Writing**

Continuation of ENGL 151. Prereq: ENGL 151 and ENGL& 101 or ENG 101 or permission.

**ENGL 153 (5) C,N****Creative Writing**

Continuation of ENGL 152. Emphasis on writing, editing and proofreading manuscripts. Includes literary magazine production experience in editing, design and layout. Prereq: ENGL 151 and ENGL 152 or permission (N). Includes workshops and seminars for those with writing experience (C).

**ENGL 155 (3) C****Writing for the Media – Advanced Scripting**

Development of individual and small group scripts, teleplays, adaptation of short stories and individual projects. Projects to be used in the video festival. Coreq: COM 200.

**ENGL 198 (1-3) S****English Workshop**

Emphasis on building skills in a variety of areas: vocabulary development, reading comprehension, grammar, punctuation, sentence structure and strength. Addresses diagnosed student needs individually, with a mixture of workshop and lecture techniques.

**ENGL 201 (5) C,S****Advanced Composition**

Reading and writing exposition with emphasis on context, audience and rhetorical options. Provides critique experience for own and others' writing. Prereq: ENGL& 101 or ENG 101 or permission.

**ENGL 203 (3) C****Writing for the Media: Advanced Script Writing**

Emphasizes writing for film and videotape productions utilizing exterior and interior settings. Develop scripts for 3-7 minute small group production pieces which will be shot, edited and produced in COM 225.

**ENGL 204 (5) C****Understanding Language**

Learn the fundamental structures of English as well as the theory of grammar, language origination (biological and historical), language relationships and usage. Study how language changes according to a clearly defined set of internal rules. Prereq: ENGL& 101 or ENG 101.

**ENGL 205 (5) C****Creative Nonfiction**

Focuses on nonfiction and its disciplines but draws from the other literary genres in terms of creative techniques. Learn to combine imaginative strength with literary techniques borrowed from fiction, poetry and drama to create art in a nonfiction form. Goes well beyond the typical undergraduate composition essay. Prereq: ENGL& 101 or ENG 101.

**ENGL 214 (5) C****Major British Writers**

Covers 1920 to the present. Read a wide variety of authors and genres with attention to the multi-cultural forces that shape British literature today. Study the historical and social forces surrounding the literature for context. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL 218 (5) C****Holocaust Literature: Voices From the Holocaust**

(Formerly ENG 235) Examines literature written by survivors of the Holocaust or the Shoah. Read accounts written by people who survived to write and publish their memories. Meet one of the authors. Develop an historical context for World War II and the rise of Nazi Germany to understand the literature.

**ENGL 219 (5) C,N,S****Between the Wars**

(Formerly ENG 236) Explores the character, mood and atmosphere of post-WWI American writers, including African-American, Native-American, Asian-American and European-American. Considers the implications and nature of their work in the context of their time. Prereq: ENGL& 101 or ENG 101 placement.

**ENGL& 224 (5) C,N,S****Shakespeare I**

(Formerly ENG 141) Study of a representative selection of Shakespeare's comedies, tragedies, romances, and history. Covers the range of Shakespeare's career (without duplication of materials from ENGL& 225). May take one or both classes. Prereq: ENGL& 101 or ENG 101 placement.

**ENGL& 225 (5) C,N,S****Shakespeare 2**

(Formerly ENG 142 – Shakespeare) Continuation of ENGL& 224. May take one or both classes. Prereq: ENGL& 101 or ENG 101 placement.

**ENGL& 226 (5) C,N****British Literature I**

(Formerly ENG 211 – Major British Writers) the early Celtic period, the Roman occupation, the Anglo Saxon period, the Norse invasions, the Middle Ages to the English Renaissance before Shakespeare. Emphasizes the historical forces, social shifts and significant cultural clashes that form the context for this literature. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**ENGL& 227 (5) C,N,S****British Literature II**

(Formerly ENG 212 – Major British Writers) From 1540 -1800. Covers Shakespeare and the English Reformation and Renaissance, English global expansion, growing awareness of science and The Age of Reason. Emphasizes the historical forces, social shifts and cultural differences that form the context for this literature. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL& 228 (5) C,N,S****British Literature III**

(Formerly ENG 213 – Major British Writers) Covers the French Revolution through the Romantic and Victorian periods through World War I (1785-1919). Emphasizes the historical forces, social shifts and cultural differences that form the context for this literature. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL& 230 (3) C,N,S**  
**Technical Writing**

(Formerly EGR 231 – Technical Writing) Presents formats and mechanics of writing demands in occupational areas related to engineering technologies. Emphasis on project types; layout and design; use of illustrations, schematics and mathematics; writing for specific audiences; research and documentation; resume writing. (Not recommended for first-year transfer students.) Prereq: ENGL& 101 or ENG 101 for most degree and all Engineering transfer students. Appropriate test scores as designated by certificate programs. Fulfills portion of transfer requirements for UW Engineering Programs.

**ENGL 231 (3-5) N,S**  
**Children's Literature**

Studies children's and adolescent literature from diverse cultures within the United States. Covers the power and elements of story and reflection of values. Prereq: Placement into or completion of ENGL& 101 or ENG 101 (N).

**ENGL 232 (5) S**  
**Young Adult Literature**

Emphasizes young adult literature from diverse cultures within the United States, exploring values reflected and the power and elements of story.

**ENGL 233 (2-5) S**  
**Coming of Age Across Cultures**

Studies "coming of age" literature in two or more countries.

**ENGL 240 (5) C,N**  
**Reading & Writing Autobiography**

Read autobiographies of well-known people and write your own. Involves both critical and personal writing assignments, with an emphasis on the personal dimension of writing. Recommended: ENGL& 101 or ENG 101.

**ENGL 241 (5) N**  
**Reading & Writing Autobiography**

Continuation of ENGL 240. Prereq: ENGL 240 and placement into ENGL& 101 or ENG 101.

**ENGL& 244 (5) C,N,S**  
**American Literature I**

(Formerly ENG 221) Surveys literature of the United States from Colonial times to the early 19th century. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL& 245 (5) C,N,S**  
**American Literature II**

(Formerly ENG 222) Covers 19th century writers with emphasis on short stories and growth of the American novel. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL& 246 (5) C,N,S**  
**American Literature III**

(Formerly ENG 223) Covers late 19th and 20th century writers with emphasis on modern fiction, drama, poetry and trends in literature. Practice critical techniques. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL 251 (5) C,N,S**  
**Studies in the Novel**

Studies major novels associated with specific philosophical or chronological periods, such as the great Victorian novelists, the Naturalists and American Realists. Usually covers 5 novels per quarter. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**ENGL 252 (5) C,N,S**  
**Novels of Western Literature**

Emphasis on European and American novels from the past two centuries viewed in the philosophical and historical contexts of the time. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**ENGL 253 (5) N**  
**Studies in the Novel**

Continuation of ENGL 252. Prereq: Placement into ENGL& 101 (N).

**ENGL& 254 (5) C,N,S**  
**World Literature I**

(Formerly ENG 110 – Ancient Literature) Critical readings and discussion of the creation stories and early literature of several ancient cultures, examining the material as myth, as history, as literature and as records of a culture's self-image. May include Enuma Elish, Gilgamesh, The Theogony, The Iliad, The Odyssey, the plays of Sophocles and Aeschylus, parts of the Bible and writings of Virgil and Ovid. Prereq: Placement in ENGL& 101 or ENG 101.

**ENGL& 256 (5) C,N,S**  
**World Literature III**

(Formerly ENG 120 – Contemporary World Literature) Cross-cultural survey of 20th century literature from Latin America, Africa, Asia, Europe and the United States. Reading and discussion of major modern novelists who have influenced the form and content of other writers. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**ENGL 257 (5) C,N,S**  
**Survey of Literary Masterpieces of the United States**

(Formerly ENG 224) Illustrates the richness and variety of writing and represents enduring concerns and questions of American literature through selected works. Prereq: ENGL& 101 or ENG 101 placement.

**ENGL 258 (5) C,N,S**  
**Literature of American Cultures**

(Formerly ENG 228) Surveys literature from a variety of cultures including Asian-American, African-American, European-American, Chicano and Latino-American and Native-American. Analysis of the writing and sociological, political, and historical contexts of the authors. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**ENGL 260 (5) C,N,S**  
**Asian-American Literature**

(Formerly ENG 225) Focuses on fiction and poetry of Asian-Americans, covered in order of their immigration: Chinese, Japanese, Filipino, Korean, Southeast Asian and the recent groups from Asia and the Pacific Islands. Prereq: ENGL& 101 or ENG 101 placement.

**ENGL 263 (5) C,N**  
**The Bible as Literature**

Studies the Bible as an anthology of literary texts expressing the religious ideas of ancient Israel. Emphasizes reading the Old Testament and New Testament with literary and historical understanding. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL 265 (5) C,N**  
**Literature & Society**

Studies patterns of literary expression as a guide to social attitudes and value systems, the part society plays in shaping literature and the degree to which literature reflects society.

**ENGL 266 (5) C,S**  
**Literature of Emerging Nations –Third World Literature**

(Formerly ENG 226) Surveys traditional and contemporary literature from Africa, Asia and South America.

**ENGL 267 (5) C,N**  
**The Literature of the American West**

(Formerly ENG 227) Covers literature about the American West by people of the American West with emphasis on cultural, historical, and sociological concerns. Prereq: Placement into ENGL& 101 or ENG 101.

**ENGL 270 (5) C**  
**The Beat Generation Writers**

Focus on the literature of the Beat Generation Writers in the U.S. in the 1940s, such as Jack Kerouac, Allen Ginsberg and William Burroughs who continue to have an influence on American society today. Prereq: Eligibility for ENGL& 101 or ENG 101.

**ENGL 291 (5) C,N,S**  
**Literature by Women**

Surveys the literature of women writers from Asian, African, European, Latino and Native American cultures. Explores the contexts and lives of the characters, considering culture and gender in their values and attitudes. Prereq: Placement into ENGL& 101 or ENG 101 (N).

**ENGL 292 (5) C,N,S**  
**Literature by Women: Global Perspectives**

Surveys literature by women from African, Asian, Latin American, Middle Eastern and other non-western cultures.

**ENGL 293 (5) C,N,S**  
**Special Studies in Literature – Science Fiction**

Examines selected readings in science fiction and fantasy from the 19th century to present. May include American, British and continental European writers.

**ENGL 296 (1-3) N**  
**Independent Study**

Create an individual project, syllabus and outcomes with instructor. Prereq: Permission.

**ENGL 299 (1-5) C,N,S**  
**Special Topics in English**

Create an individual project, syllabus and outcomes with instructor. Prereq: Permission.

**English as a Second Language –  
Beginning and Intermediate****ESL 006 (1-18) C,S**  
**Pre-Literacy, Level 1****ESL 010 (1-15) C,N,S**  
**Level 1, Integrated Skills**

Emphasis on basic vocabulary, simple sentence structure, pronunciation, basic reading and writing needed for daily functioning. Concentrates on developing oral and listening skills through drills, dialogues, role-playing, dictation and conversation. Work on literacy skills.

**ESL 011 (1-15) N,S**  
**Level 1A, Integrated Skills**

Beginning course for non-native speakers of English with emphasis on vocabulary, pronunciation, basic reading and writing needed to meet daily survival situations.

**ESL 012 (1-15) N,S**  
**Level 1B**

Beginning course for non-native speakers of English with emphasis on vocabulary, pronunciation, basic reading and writing needed to meet daily survival situations. Prereq: ESL 011 or placement.

**ESL 013 (1-15) S**  
**Level 1C**

Beginning course for non-native speakers of English with emphasis on vocabulary, pronunciation, basic reading and writing needed to meet daily survival situations. Prereq: ESL 012 or placement.

**ESL 015 (1-15) C,N,S**  
**Level 1, Reading & Writing Skills**

Practice in reading and writing skills needed for daily situations and jobs. Emphasis on basic vocabulary, simple sentences, and pronunciation.

**ESL 016 (1-15) C,N,S**  
**Level 1, Speaking & Listening Skills**

Practice in speaking and listening skills needed for job and/or daily situations. Prereq: Placement into ESL 011 or 012.

**ESL 017 (1-15) C,S**  
**Level 1, Multiple Skills Lab**

Tutoring in specific areas for students in ESL Level 1. Prereq: Permission.

**ESL 018 (1-15) C,S**  
**Level 1, Workplace Literacy****ESL 019 (1-15) C,S**  
**Level 1, VESL****ESL 020 (1-15) C,N,S**  
**Level 2, Integrated Skills**

Practice in listening skills, understanding idiomatic expressions and producing appropriate responses in contextual situations. Continued emphasis on basic vocabulary, reading and writing. Prereq: ESL 010, ESL 012 (N), or placement.

**ESL 021 (1-15) C,N,S**  
**Level 2A, Integrated Skills**

Beginning-level course for non-native speakers of English. Continued emphasis on vocabulary development, reading and writing needed to function effectively in a job or daily situations. Prereq: ESL 010, 012, or placement (N); ESL 013 or placement (S,C).

**ESL 022 (1-15) N,S**  
**Level 2B, Integrated Skills**

Beginning-level course for non-native speakers of English. Continued emphasis on vocabulary development, reading and writing needed to function effectively in a job or daily situations. Prereq: ESL 021 or placement.

**ESL 023 (1-15) S**  
**Level 2C**

Intermediate-level course for non-native speakers of English. Continued emphasis on vocabulary development, reading and writing needed to function effectively in a job or daily situations. Prereq: ESL 022 or placement.

**ESL 025 (1-15) C,N,S**  
**Level 2, Reading, Writing & Grammar Skills**

Practice in reading, writing, and grammar skills for survival and academic English. Emphasis on vocabulary development, reading comprehension and strategies, and writing for effective communication in a job or daily situations.

**ESL 026 (1-15) C,N,S**  
**Level 2, Speaking & Listening Skills**

Practice in speaking and listening skills needed for job and/or daily situations. Prereq: ESL 012, 016, or placement at ESL Level 2.

**ESL 027 (1-15) C,N,S**  
**Level 2, Multiple Skills Lab**

Tutoring in specific areas of ESL Level 2. Prereq: Permission.

**ESL 028 (1-15) C,N,S**  
**Level 2, Workplace Literacy****ESL 030 (1-15) C,N,S**  
**Level 3, Integrated Skills**

Intermediate level course for non-native speakers of English. Continued emphasis on writing practice and reading to improve vocabulary, comprehension and speed and writing practice. Coping and cultural orientation skills needed for vocational or academic program. Prereq: ESL 020 or placement, ESL 022 (N).

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN** . . . . . **Watch Technology**

**NAME TO PREFIX**  
**Watch Technology** . . . . . **HIN**

**ESL 031 (1-15) N,S**  
**Level 3A, Integrated Skills**

Intermediate-level course for non-native speakers of English with continued emphasis on improving vocabulary, reading comprehension and speed. Writing practice includes sentence construction and simple paragraphs. Prereq: ESL 020, ESL 022 or placement.

**ESL 032 (1-15) N,S**  
**Level 3B, Integrated Skills**

Intermediate-level course for non-native speakers of English with continued emphasis on improving vocabulary, reading comprehension and speed. Writing includes sentence construction and simple paragraphs. Prereq: ESL 020, ESL 031 or placement.

**ESL 033 (1-15) S**  
**Level 3C**

Intermediate-level course for non-native speakers of English with continued emphasis on improving vocabulary, reading comprehension and speed. Writing includes sentence construction and simple paragraphs. Prereq: ESL 032 or placement.

**ESL 034 (1-15) N,S**  
**Level 3D, Fast Track**

Fast track course for students who are able to study at a faster pace than their classmates. Covers ESL 031, 032 and 033 in one quarter (North covers ESL 031 and 032). North students with less than a 75% average may return to other ESL classes as determined by their instructor. Prereq: Instructor recommendation only.

**ESL 035 (1-15) N,S**  
**Focus on Writing**

For students who want to improve their writing skills. In-depth study of English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 3 or teacher recommendation.

**ESL 036 (1-15) C,N,S**  
**Level 3, Speaking & Listening Skills**

Practice in speaking and listening skills needed for job and/or daily situations. Prereq: ESL 022, or placement at ESL Level 3.

**ESL 037 (1-15) C,N,S**  
**Level 3, Multiple Skills Lab Beginning Computer Literacy (N)**

Tutoring in specific areas for students in ESL Level 3. Prereq: Permission. (C, S)

Beginning course in using personal computers. Emphasis on keyboarding, beginning word processing and other basic computer skills. Prereq: Placement at ESL Level 3 or higher. (N)

**ESL 038 (1-15) C,N,S**  
**Level 3, Workplace Literacy**

**ESL 039 (1-15) C,S**  
**Level 3, VESL**

**ESL 040 (1-15) C,N,S**  
**ESL Level 4 Integrated Skills**

Emphasis on oral and listening skills, reading instruction to improve vocabulary, comprehension, speed and writing practice. Prereq: ESL 030, ESL 032 or placement (N).

**ESL 041 (1-15) C,N,S**  
**ESL Level 4A, Integrated Skills**

Intermediate level course for non-native speakers of English with emphasis on improving vocabulary, reading comprehension and speed. Prereq: ESL 030, ESL 032 or placement (N); ESL 032 or placement (C, S).

**ESL 042 (2) N**  
**ESL Level 4B, Integrated Skills**

Intermediate-level course for non-native speakers of English with continued emphasis on improving vocabulary, reading comprehension and speed. Writing practice includes sentence construction and paragraph development. Prereq: ESL 030, ESL 041 or placement.

**ESL 044 (1-10) C,N,S**  
**Level 4D Fast Track**

Fast track course for students who are able to study at a faster pace than their classmates. Covers ESL 041 and ESL 042 in one quarter. Prereq: Instructor recommendation only (N).

**ESL 045 (1-15) C,N,S**  
**Focus on Writing**

For students who want to improve their writing skills. In-depth study of English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 4 or teacher recommendation.

**ESL 046 (1-5) C,N,S**  
**ESL Level 4, Listening & Speaking**

Practice, develop and improve speaking and listening skills needed for daily life, jobs and student educational goals. Emphasis on communication skills, not specific pronunciation.

**ESL 047 (1-15) C,N,S**  
**ESL Level 4, Computer Assisted**

For ESL students who already use one or more of the following: email, the Internet, and/or Word. Prereq: Placement at Level 3 or higher. (N)

*Tutoring in specific areas for students in ESL Level 4. Prereq: Permission. (C, S)*

**ESL 048 (1-6) C,S**  
**ESL Test Preparation & College Readiness**

Develop skills necessary to transition successfully into an American college. Practice taking standardized English proficiency and placement tests. Provides information about the application process for financial aid and support services. Explores issues of time management, students' own current abilities and styles of learning, barriers, learning deficiencies or skills gaps. Covers strategies for improvement. Prereq: None.

**ESL 049 (1-15) C,N,S**  
**Vocational ESL 4**

Supports vocational, technical and employment training.

**ESL 050 (1-15) C,N,S**  
**ESL Level 5, Integrated Skills**

High Intermediate ESL course to develop reading, writing and grammar skills for students preparing to take college level courses. Prereq: ESL 042, 044 or placement on the ESL Placement Test (C, S). Placement in ESL 051 or 052 (N).



**ESL 051 (1-15) C,N,S**  
**ESL Level 5A, Integrated Skills**

High intermediate ESL course with emphasis on reading, writing, speaking and listening and grammar skills. Emphasis on accuracy of sentence level grammar and reading skills involving vocabulary development and inferencing skills. Prereq: ESL 042, 044 or placement.

**ESL 052 (1-15) C,N,S**  
**ESL Level 5B, Integrated Skills**

High intermediate ESL course with continued emphasis on reading, writing, speaking and listening and grammar skills to prepare students for vocational or academic coursework and for employment. Prereq: ESL 051 or placement.

**ESL 055 (1-15) C,N,S**  
**Focus on Writing**

For students who want to improve their writing skills. Study English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 5 or teacher recommendation.

**ESL 056 (1-15) C,N,S**  
**ESL Level 5, Speaking & Listening**

Upon completion, be able to listen actively and speak so others can understand and participate effectively and independently in conversations on everyday survival, work and social situations, in person and on the telephone.

**ESL 057 (1-15) C,N,S**  
**ESL Level 5, Computer Assisted**

A self-paced, individualized instructional setting for ESL Level 5 students to build on English skills learned in core ESL classes.

**ESL 059 (1-15) C,N,S**  
**Vocational ESL 5**

For students currently enrolled in the ESL Program. Provides specific support in vocational ESL and assists students pursuing career and professional technical programs. Prereq: Permission.

**ESL 060 (1-15) C,N,S**  
**ESL Level 6 Integrated Skills, Advanced ESL**

Emphasis on writing multi-paragraph compositions and reading a variety of texts. Prereq: Placement in ESL 061 or 062.

**ESL 061 (1-15) C,N,S**  
**ESL Level 6A Integrated Skills, Advanced ESL**

Emphasis on writing multi-paragraph compositions and reading a variety of texts. Continued work on grammar. Prereq: ESL 052 or placement.

**ESL 062 (1-15) C,N,S**  
**ESL Level 6B**

Emphasis on composition, reading a variety of texts, grammar and vocabulary expansion. Prereq: ESL 061 or placement.

**ESL 063 (10) C**  
**ESL for Information Technology 1**

1 of 3 non-sequential courses which integrate the Washington State Adult Basic Education ESL Levels 5 and 6 reading, writing, listening and speaking standards with MIC courses, which provide the context for ESL learning outcomes and activities.

**ESL 064 (10) C**  
**ESL for Information Technology 2**

1 of 3 non-sequential courses which integrate the Washington State Adult Basic Education ESL Levels 5 and 6 reading, writing, listening and speaking standards with MIC courses, which provide the context for ESL learning outcomes and activities.

**ESL 065 (1-13) C,N,S**  
**Focus on Writing**

For students who want to improve their writing skills. Study English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 6 or teacher recommendation.

**ESL 066 (1-15) C,N,S**  
**ESL Level 6, Speaking & Listening**

On completion, be able to listen actively and speak so others can understand.

**ESL 067 (1-15) C,S**  
**ESL Level 6, Computer Assisted**

A self-paced, individualized instructional setting for ESL Level 6 students to build on English skills learned in core ESL classes.

**ESL 068 (1-3) C,N,S**  
**Educational Interviewing for ESL Students**

Helps ESL students at all competency levels identify their current abilities, characteristics, styles and readiness to learn. Intro to campus resources.

**ESL 069 (1-15) C,N,S**  
**Vocational ESL**

For ESL students concurrently enrolled in a professional-technical program. Provides specific support in content courses and vocational ESL and assists students in completing their programs and building job-related language skills. Prereq: Permission.

**ESL 070 (10) C**  
**ESL for Information Technology 3**

1 of 3 non-sequential courses which integrate the Washington State Adult Basic Education ESL Levels 5 and 6 reading, writing, listening and speaking standards with MIC courses, which provide the context for ESL learning outcomes and activities.

**ESL 071 (1-15) N,S**  
**ESL Citizenship 1**

Beginning level preparation for the United States citizenship examination through the practice of listening, speaking, reading and writing skills and through the study of U.S. history and government. Prereq: ESL Level 3 or higher.

**ESL 072 (1-15) N,S**  
**ESL Citizenship 2**

Intermediate level preparation for the United States citizenship examination through the practice of listening, speaking, reading and writing skills and through the study of U.S. history and government. Prereq: ESL 071 or permission.

**ESL 073 (1-15) N,S**  
**ESL Citizenship 3**

Continued preparation for the United States citizenship examination through the practice of listening, speaking, reading and writing skills and through the study of U.S. history and government. Prereq: ESL 072 or permission.

**ESL 075 (1-15) N**  
**ESL English Pronunciation**

Intro to the basics of accurate English pronunciation such as vowel and consonant sounds and sentence intonation. Prereq: Placement in Level 3, 4, or permission.

**ESL 076 (1-15) C,N,S**  
**ESL Pronunciation**

Intro to some of the basics of accurate English pronunciation for non-native speakers of English: some stressed and unstressed vowel sounds, basic word stress patterns, sentence stress and rhythm and other features.

**ESL 077 (1-15) C,N,S****ESL Pronunciation**

**Central, South:** Intro to some of the basics of accurate English pronunciation for non-native speakers of English: sentence stress and unstress, linking of consonant sounds across word boundaries, basic intonation patterns and other features.

**North:** Advanced course on accurate English pronunciation: troublesome vowel and consonant sounds, word stress and sentence intonation. Prereq: Placement into ESL 061 or 092/093 or instructor permission.

**ESL 078 (1-15) C,N,S****ESL Pronunciation**

**Central, South:** Intro to some of the basics of accurate English pronunciation for non-native speakers of English: certain consonant sounds, troublesome consonant clusters and other features.

**North:** Advanced course on accurate English pronunciation: troublesome vowel and consonant sounds, word stress and sentence intonation. Prereq: Placement into ESL 061 or 092/093 or instructor permission.

**ESL 083 (1-5) S****Strategic Learning in a Content Area**

Supports strategic learning in a college credit class through concurrent enrollment in the college class and ESL 083. Learn appropriate study skills such as metacognitive strategies, previewing, skimming and scanning of written materials, summarizing and paraphrasing, note-taking, revision and expansion of notes and research techniques. Understand and meet content teacher expectations.

**English for Non-native Speakers – College Transitional ESL****ESL 084 (1-5) S****English for Non-Native Speakers Telecourse**

Thirty-hour Telecourse to help high beginning ESL students improve their speaking, listening comprehension skills and vocabulary. Do speaking, listening, comprehension and vocabulary development exercises. Required attendance for ten three-hour class meetings on campus.

**ESL 085 (3-5) S****Survey of English Grammar – Verb Review for Vocational Students**

Covers all areas of basic English grammar for students who are under-prepared for college level ESL classes. Emphasizes sentence-level writing. Focuses on simple, compound and complex sentences, all active verb tenses and parts of speech. Uses vocabulary from vocational courses. Prereq: Placement on the English placement test.

**ESL 087 (1-5) S****ESL Support Lab**

Work out an individualized program with the instructor, which could include the use of computer software/Internet resources. Focuses on content area, grammar, reading, writing, punctuation, spelling and vocabulary building.

**ESL 088 (3) N****Advanced English Pronunciation I**

Advanced course on accurate English pronunciation. Covers features such as certain vowel and consonant sounds, word and sentence stress. Prereq: Placement in ESL 092/093 or higher or permission.

**ESL 089 (1-5) C,N****Pronunciation Practice & Vocabulary Development**

**Central:** Practice pronunciation, listening, conversation and writing skills to reinforce the work of ESL classes or other vocational or academic courses. May be repeated a maximum of eight quarters (ESL 089A-H). Must be taken in conjunction with recommended ESL classes. Prereq: Enrollment in ESL 092-099 or permission.

**North:** Advanced class on accurate English pronunciation: troublesome vowel and consonant sounds and sentence intonation. Prereq: Placement into ESL 094/095 or instructor permission.

**ESL 090 (3-5) C,N,S****Oral Communication: Standard Pronunciation for Non-Native Speakers**

Improve oral expression and listening comprehension. Emphasis on oral communication in small groups and informal presentations. Prereq: ESL 051, 062 or permission (C); placement in ESL 092/093 or permission (N); placement on the English placement test (S).

**ESL 091 (3-5) C,S****Listening & Note-Taking Skills for ESL Students**

Improve listening, speaking and note-taking skills necessary for college lecture courses. Participate in lectures, workshops and videotaped lectures. Prereq: Permission or placement on the English placement test.

**ESL 092 (5) N,S****Basic English Reading for Non-Native Speakers**

For non-native speakers reading below the seventh-grade level. Emphasis on reading comprehension and study skills. Prereq: Placement on English placement test or permission (S); ESL 051 or placement in English placement test (N). Coreq: ESL 093.

**ESL 093 (5) C,N,S****Basic English Writing for Non-Native Speakers**

Focus on control of English sentence structure, syntax, grammar and punctuation. Emphasizes writing skills. Prereq: ESL 051 placement on ESL Placement Test (N); ESL 051 or placement on English placement test (S). Coreq: ESL 092.

**ESL 094 (3-5) N,S****English For Non-Native Speakers II – Reading**

For non-native speakers reading at seventh- to eighth-grade level. Develop reading comprehension and speed. Prereq: ESL 092/093, 051 or placement on ESL Placement Test (N); ESL 092 or placement on English placement test or permission (S). Coreq: ESL 095.

**ESL 095 (3-5) N,S****English For Non-Native Speakers II – Writing**

Designed for non-native speakers of English. Focuses on mastering sentence control and developing clear, coherent paragraphs. Emphasizes developing fluent, effective writing. Prereq: ESL 092/093, 052 or placement on ESL placement test (N). Placement on English placement test, ESL 093 or permission (S). Coreq: ESL 094.

**ESL 096 (3-5) C,N,S****College Preparatory English For Non-Native Speakers I – Reading**

For non-native speakers reading at ninth- to tenth-grade level. Increase reading comprehension, speed, vocabulary and confidence using college preparatory materials. Prereq: ESL 061, ESL 094/095 or placement on ESL test (N); ESL 094, placement on English placement test, or permission (S). Coreq: ESL 097.

**ESL 097 (3-5) C,N,S**  
**College Preparatory English For Non-Native Speakers I – Writing**

Practice writing correct English sentences and develop coherent paragraphs into short essay answers and lab reports. Strengthen writing skills. Prereq: ESL 061, ESL 094/095 or placement on ESL Placement Test (N). ESL 095, placement on English placement test or permission (S). Coreq: ESL 096.

**ESL 098 (5) C**  
**College Preparatory English for Non-Native Speakers II – Reading**

Emphasis on vocabulary, increasing comprehension and formulation of answers to essay questions. Reading includes college-level academic and vocational texts. Concurrent enrollment in ESL 091 or ESL 099 strongly recommended. Prereq: ESL 096, placement on the English placement test or permission.

**ESL 099 (5) C**  
**College Preparatory English For Non-Native Speakers II – Writing**

Develop coherent paragraphs and short essays. Emphasis on complex paragraphs using appropriate style and techniques of paraphrasing and summarizing. Includes library research skills. Preparation for college-level writing. Prereq: ESL 097, placement on the English placement test, or permission. Recommended Coreq: ESL 091 or ESL 098.

**French**

**FRCH& 121 (5) C,N,S**  
**French I**

(Formerly FRE 101 – Elementary) For students with no previous French studies. Covers fundamentals of grammar and syntax, pronunciation, oral and written exercises, reading and conversation and cultural aspects of the countries in which French is spoken. Oral practice with tapes required outside of class. Recommended: Eligibility for ENGL& 101 (C).

**FRCH& 122 (5) C,N,S**  
**French II**

(Formerly FRE 102 – Elementary) Continuation of FRCH& 121. Emphasis on pronunciation and oral and written communication. Prereq: FRCH& 121 or FRE 101 or permission.

**FRCH& 123 (5) C,N,S**  
**French III**

(Formerly FRE 103 – Elementary) Continuation of FRCH& 122. Development of skills in oral and written communication while mastering pronunciation techniques. Prereq: FRCH& 122 or FRE 102 or permission.

**FRCH 204 (2-5) C,S**  
**Advanced French Language & Literature**

Advanced study of core literature and grammar. Choose an area of interest and prepare regular compositions and presentations. May include creating and performing adaptations of plays and short stories. Prereq: FRCH& 223 or FRE 203 or permission.

**FRCH 205 (2-5) C**  
**Advanced French Language & Literature**

Continuation of FRCH 204. Prereq: FRCH 204 or FRE 204 or permission.

**FRCH 206 (2-5) C**  
**Advanced French Language & Cultures**

Continuation of FRCH 205. Prereq: FRCH 205 or FRE 205 or permission.

**FRCH 210 (4.5) C**  
**French Civilization**

Intro to aspects of contemporary French society. Taught in French. Part of overseas study program in France.

**FRCH 212 (5) C**  
**Intermediate French Language & Culture**

For those who have previously had four quarters of French or equivalent. Focuses equally on the four skills of language learning: speaking, comprehension, writing and reading.

**FRCH 215 (4.5) C**  
**Intro to French Literature**

Study of French literature and literary analysis for intermediate-level students through the study of selected modern texts. Taught in French. Part of overseas study program in France.

**FRCH& 221 (5) C,N,S**  
**French IV**

(Formerly FRE 201 – Second Year) Detailed review of French grammar and syntax. Focus on writing, conversation and discussion of literary texts. Includes oral presentations on aspects of francophone cultures. Prereq: FRCH& 123 or FRE 103 or permission.

**FRCH& 222 (5) C,N,S**  
**French V**

(Formerly FRE 202 – Second Year) Continuation of FRCH& 221. Prereq: FRCH& 221 or FRE 201 or permission.

**FRCH& 223 (5) C,N,S**  
**French VI**

(Formerly FRE 203 – Second Year) Continuation of FRCH& 222. Prereq: FRCH& 222 or FRE 202 or permission.

**FRCH 231 (5) N**  
**Advanced French Language & Literature**

Advanced review of all major concepts of French grammar and broadening of vocabulary base with more challenging reading and writing assignments. Some tutoring in small group work with FRCH& 221 students is expected. Prereq: FRCH& 223 or FRE 203 or permission.

**FRCH 232 (5) N**  
**Advanced French Language & Literature**

Continuation of FRCH 231. Prereq: FRCH 231 or FRE 231 or permission.

**FRCH 233 (5) N**  
**Advanced French Language & Literature**

Continuation of FRCH 232. Prereq: FRCH 232 or FRE 232 or permission.

**FRCH 298 (2-5) C,N,S**  
**Independent Study in French**

Independent study of selected topic(s) in French. To be arranged with instructor. Prereq: Permission.

**FRCH 299 (1-5) C,N,S**  
**Independent Study in French**

Independent study of selected topic(s) in French. Prereq: Permission.

**German**

**GERM& 121 (5) C,N,S**  
**German I**

(Formerly GER 101 – Elementary) For students with no previous German studies. Covers pronunciation, fundamentals of grammar and syntax, oral and written exercises, reading and conversation and cultural aspects of the countries in which German is spoken. Requires oral practice with tapes outside of class. Recommended: Eligibility for ENGL& 101 or ENG 101 (C).

**GERM& 122 (5) C,N,S**  
**German II**

(Formerly GER 102 – Elementary) Continuation of GERM& 121. Focus on syntax, oral and written exercises, reading and conversation, fundamentals of grammar, pronunciation and culture. Prereq: GERM& 121 or GER 101 or permission.

**GERM& 123 (5) C,N,S**  
**German III**

(Formerly GER 103 – Elementary) Continuation of GERM& 122. Emphasis on speaking, reading, writing and grammatical concepts and cultural discussions. Prereq: GERM& 122 or GER 102 or permission.

**GER 299 (1-5) C,N**  
**Independent Study in German**

Further skills beyond the level of GERM& 123. Uses an intermediate text of contemporary short stories. Prereq: Permission.

**Italian****ITA 101 (5) C**  
**Elementary Italian**

For those with little or no Italian language experience. Learn to communicate with others at an elementary level. Uses a combination of communicative and grammatical teaching methods.

**Japanese****JAPN& 121 (5) C,N,S**  
**Japanese I**

(Formerly JPN 101 – Elementary) For students who have not previously studied Japanese. Intro to Japanese conversation, grammar, culture and the Japanese hiragana writing system. Recommended: Eligible for ENGL& 101 or ENG 101 eligibility (C).

**JAPN& 122 (5) C,N,S**  
**Japanese II**

(Formerly JPN 102 – Elementary) Continuation of JAPN& 121. Includes development of speaking, listening, reading and writing skills. Introduces the kanji (Chinese character) writing system and up to 30 basic characters. Prereq: JAPN& 121 or JPN 101 or permission.

**JAPN& 123 (5) C,N,S**  
**Japanese III**

(Formerly JPN 103 – Elementary) Continues the development of language skills in all areas. Presents another 60 characters. Prereq: JAPN& 122 or JPN 102 or permission.

**JAPN& 221 (5) C,N,S**  
**Japanese IV**

(Formerly JPN 201 – Second Year) Expands basic grammar, vocabulary and writing systems to intermediate level speaking, reading, writing and aural comprehension of the language. Acquire mastery of hiragana, katakana and 100 kanji. Prereq: JAPN& 123 or JPN 103 or permission.

**JAPN& 222 (5) C,N,S**  
**Japanese V**

(Formerly JPN 202 – Second Year) Continuation of JAPN& 221. Further expands grammar, vocabulary and writing systems to intermediate level of speaking, reading and writing. Intro to new kanji. Prereq: JAPN& 221 or JPN 201 or permission.

**JAPN& 223 (5) C,N,S**  
**Japanese VI**

(Formerly JPN 203 – Second Year) Continuation of JAPN& 222. Further expands basic grammar, vocabulary and writing systems to intermediate level of speaking, reading and writing. Intro to new kanji and the use of the Japanese dictionary. Prereq: JAPN& 222 or JPN 202 or permission.

**JAPN 298, 299 (1-5) C,N,S**  
**Independent Study for Japanese**

Independent study of selected topic(s) in Japanese arranged with faculty. Prereq: Permission.

**Linguistics****LAN 101 (5) C**  
**Intro to Linguistics**

Intro to the study of natural language. Presents the similarities in the basics of language as an instrument of thought and communication. Covers the sources for cultural differentiation between all linguistic materials.

**LAN 110 (5) C,N,S**  
**Comparative Linguistics:****American Sign Language & English**

Intro to linguistics as applied to English and American Sign Language. Examination of phonology, morphology, syntax and language use. Prereq: ASL& 123 or ASL 103 with a 2.0 GPA or higher.

**Literature****LIT 236 (5) C**  
**Latin American Colonial Literature**

Surveys literary expressions of Colonial times through 18th century in Spanish America and Peninsular Spain. Covers representative and outstanding prose works of 16th & 17th centuries. Also offered as SPAN 236.

**LIT 238 (5) C**  
**Chicano Narrative**

Intro to significant works in Chicano literature. Study of genre development. Understand the implications of interdependence among diverse cultural groups. Also offered as SPAN 238.

**Russian****RUSS& 121 (5) C,N,S**  
**Russian I**

(Formerly RUS 101 – Elementary) For those who have not previously studied Russian. Intro to Russian, emphasizing speaking, listening and reading comprehension. Covers the writing system and basic grammar concepts. Studies culture and contemporary customs. Prereq: Eligibility of ENGL& 101 (C).

**RUSS& 122 (5) C,N,S**  
**Russian II**

(Formerly RUS 102 – Elementary) Continuation of RUSS& 121. Emphasis on speaking, reading, writing and grammatical concepts to ensure proper pronunciation in simple conversation. Covers reading simple texts. Prereq: RUSS& 121 or RUS 101.

**RUSS& 123 (5) C,N,S**  
**Russian III**

(Formerly RUS 103 – Elementary) Continuation of RUSS& 122. Emphasis on speaking, reading, writing and grammatical concepts. Continued development of proper pronunciation, facility with conversation and the ability to read texts with the aid of a dictionary. Prereq: RUSS& 122 or RUS 102.

**RUSS 299 (2-5) C**  
**Independent Study for Russian**

Independent study of selected topics in Russian arranged with instructor. Prereq: Permission.

**Spanish****SPAN 100 (4.5) C**  
**Comparative Spanish Grammar**

Systematic analysis of English and Spanish grammatical structures, with practical exercises on selected grammatical points suggested by students.

**SPAN 110 (4.5) C**  
**Basic Spanish Conversation**

Emphasis on developing speaking skills. Augments skills developed in Elementary Spanish. May repeat the course once to earn up to 9 credits.



**SPAN& 121 (5) C,N,S**  
**Spanish I**

(Formerly SPA 101 – Elementary) For students who have not previously studied Spanish. Covers fundamentals of grammar and syntax, oral and written exercises, pronunciation, reading and conversation and cultural aspects of the countries in which Spanish is spoken. Requires oral practice with tapes outside of class. Recommended: Eligibility for ENGL& 101 or ENG 101 (C).

**SPAN& 122 (5) C,N,S**  
**Spanish II**

(Formerly SPA 102 – Elementary) Continuation of SPAN& 121. Emphasis on pronunciation, oral and written communication. Prereq: SPAN& 121 or SPA 101 or permission.

**SPAN& 123 (5) C,N,S**  
**Spanish III**

(Formerly SPA 103 – Elementary) Continuation of SPAN& 122. Prereq: SPAN& 121 or SPA 102 or permission

**SPAN 210 (4.5) C**  
**Intermediate Conversation**

Emphasis on developing speaking skills. Augments skills developed in SPA 210. May repeat once to earn up to 9 credits. Prereq: SPAN& 123 or SPA 103 or SPAN 110.

**SPAN& 221 (5) C,N,S**  
**Spanish IV**

(Formerly SPA 201 – Second Year) Continuation of SPAN& 123. Review of grammatical structures, intensive practice in writing, conversations and reading on a variety of topics. Intro to Hispanic culture, literature and art. Prereq: SPAN& 123 or SPA 103 or permission.

**SPAN& 222 (5) C,N,S**  
**Spanish V**

(Formerly SPA 202 – Second Year) Continuation of SPAN& 221. Emphasis on the four aspects of language: reading, writing, listening and speaking through composition, oral presentation and guest speakers. Prereq: SPAN& 221 or SPA 201 or permission.

**SPAN& 223 (5) C,N,S**  
**Spanish VI**

(Formerly SPA 203 – Second Year) Continuation of SPAN& 222. Prereq: SPAN& 222 or SPA 202 or permission.

**SPAN 236 (5) C**  
**Latin American Colonial Literature**

Surveys literary expressions of Colonial times through 18th century in Spanish America and Peninsular Spain. Covers representative and outstanding prose works of 16th and 17th centuries. Also offered as LIT 236.

**SPAN 238 (5) C**  
**Chicano Narrative**

Introduces significant works in Chicano literature. Study of genre development. Understand the implications of interdependence among diverse cultural groups. Also offered as LIT 238.

**SPAN 299 (1-5) C,N,S**  
**Independent Study in Spanish**

Independent study of selected topics in Spanish arranged with instructor. Prereq: Permission and completion of 100 and 200 series or equivalent.

**Vietnamese**

*A three-course sequence in Vietnamese for beginners. Learn basic communicative skills in modern conversational Vietnamese. Emphasizes the systematic study of phonics, basic grammar, everyday expressions and vocabulary and background in culture and customs.*

**VIET& 121 (5) S**  
**Vietnamese I**

(Formerly VTN 101 - Elementary 1) Prereq: SLEP/ASSET scores indicating ENGL& 101 or ENG 101 readiness or permission.

**VIET& 122 (5) S**  
**Vietnamese II**

(Formerly VTN 102 - Elementary 2) Prereq: VIET 121 or VTN 101, SLEP/ASSET scores indicating ENGL& 101 readiness or permission.

**VIET& 123 (5) S**  
**Vietnamese III**

(Formerly VTN 103 - Elementary 3) Prereq: VIET 121 or VTN 101 & VIET 122 or VTN 102, SLEP/ASSET scores indicating ENGL& 101 readiness or permission.

**VIET& 221 (5) S**  
**Vietnamese IV**

(Formerly VTN 201 - Intermediate Vietnamese) Vietnamese for second-year students. Increase ability to communicate and interact through speaking, listening, reading and writing. Prereq: SLEP/ASSET placement scores indicating ENGL& 101 readiness, VIET 123 or VTN 103 or equivalent and/or permission.

**LIBRARY RESEARCH****LIB 101 (1-5) C,N,S**  
**Intro to Information Resources**

Develops critical thinking in the research process. Examine strategies for locating and using information resources. Students explore information policy issues such as copyright, censorship and freedom of information. Emphasizes proficiency using electronic resources and other research tools and retrieval techniques.

**LIB 140 (3) N,S**  
**Internet Information Resources**

Develop skills for locating and evaluating information resources on the Internet. Learn various search techniques for browsing from a hierarchical directory, searching for more specific information from search engines, or addressing specific sites using the URL (Uniform Resource Locator). Emphasizes how information is structured on the Internet. Recommended: Familiarity with common computer commands in Windows.

**LIB 150 (1-2) C,N,S**  
**Research in the Electronic Environment**

Intro to research using electronic information systems: online library catalogs, periodical databases and the Internet. Emphasizes analyzing information needs, choosing appropriate resources and developing effective search skills and strategies. Explores database searching and search engines. Prereq: Eligibility for ENGL& 101 and basic computer skills. Recommended: Familiarity with email.

**LIB 180 (5) C,N**  
**Research for the 21st Century**

Build skills and techniques for success as an online learner and researcher. Through a research project on a global issue, examine various strategies for locating, evaluating and applying information resources with attention to information issues like intellectual property, censorship and freedom of information. Prereq: Placement in ENGL& 101.

**LIB 299 (1-3) S**  
**Special Problems in Library Research**

Small groups cover selected topics in Library Science.

*See also: HUM 187: Information Resources in Humanities and SSC 187: Information, Knowledge and Power.*

**LINGUISTICS**

*See Languages & Literature, page 252.*

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**MARINE TECHNOLOGY****Marine Deck Technology**

**MGO 112 (2) C**  
**Marlinspike**

Practical instruction in use of line, cordage, wire rope and splicing methods. Includes reeving tackles and rigging stages, boat-swains' chairs, pilot ladders and emergency steering gear.

**MGO 120 (2) C**  
**Vessel Maintenance**

Practical experience in vessel cleaning maintenance procedures and routine operation of a ship. Tasks include washing, sanding, scaling, chipping, grinding, priming, painting, stenciling and other assigned work both on the interior and exterior of training vessels. Focus on proper technique, optimal resource utilization, cost effectiveness and corrosion prevention.

**MGO 123 (3) C**  
**Basic Piloting & Navigation**

Focuses on chart navigation and basic methods of piloting with emphasis on use of charts and nautical publications, the IALA "B" buoyage system and solving standard navigation problems. Covers how to determine geographic and luminous ranges of lights; correct for compass error, set and drift; plot dead reckoning tracks, running fixes and lines of position; solve time, speed and distance equations; predict tides and tidal currents; calculate simple ETA; and formulate anchorage procedures.

**MGO 124 (2) C**  
**Basic Vessel Handling**

Covers fundamentals of ship handling for small vessels based on single-screw theory. Instruction in ship handling techniques includes backing and filling, "Y-backing," emergency stopping, flanking, and docking and undocking. Uses a small training vessel.

**MGO 133 (6) C**  
**Seamanship Practicum**

Introductory underway practicum. Receive indoctrination to both watchstanding duties and shipboard responsibilities of an able seaman. Perform all deck-related tasks one might expect to encounter when actually at sea. Involves 12-hour voyages weekly aboard SMA's training vessels.

**MGO 137 (2) C**  
**Electronic Navigation**

Intro to standard electronic equipment and systems used to aid navigation and communication. Covers radar, gyro compass, depthsounder, Loran C, RDF, GPS, GMDSS and radiotelephone. Includes training in radar piloting and collision avoidance theory using SMA's computer radar simulator.

*NOTE: This course is not designed to satisfy the requirements of either 46 CFR 10.480 or 15.815. Students pursuing the license option will need to take a USCG-approved radar observer course from an organization so certified by the Coast Guard.*

**MGO 140 (3) C**  
**Nautical Rules of the Road**

Comprehensive study of navigation rules and regulations including purpose, technical provisions and application. Provides a comparative study of the international (COLREGS) and inland (U.S. domestic) rules with emphasis on practical interpretation and application.

**MGO 166 (6) C**  
**Navigation Practicum**

Advanced underway practicum. Under supervision, assume role of mate aboard ship and be responsible for navigating the training vessel and operating all related navigational equipment as well as directing the deck crew while underway. Demonstrate competency, proficiency and confidence in navigating a vessel without guidance. Includes 12-hour voyages weekly aboard SMA's training vessels. Prereq: MGO 133.

**MTS 201 (2) C**  
**Naval Architecture**

Survey of ship design and construction of all types of vessels. Emphasis on basic naval architecture and management considerations regarding ship structure. Includes hull structure and components, vessel design process, design stresses, tonnage measurements and load line assignments.

**MTS 202 (2) C**  
**Stability**

Covers principles, terms and procedures used in the determination of transverse, longitudinal and damage stability of ships. Includes physical laws affecting a floating body, effects of cargo operations, loose water, fuel consumption, grounding and flooding on vessel stability. Includes analyses of case studies involving loss of stability and how to perform trim and stability calculations.

**MTS 210 (2) C**  
**Marine Meteorology**

A non-mathematical intro to meteorology with specific emphasis on marine applications. Focuses on ocean weather phenomena as they impact vessel operations and the role of the ship's officer in observing, recording and analyzing developing weather patterns.

**MTS 223 (3) C**  
**Advanced Piloting & Navigation**

Continuation of MGO 123. Emphasizes advanced aspects of navigation and piloting essential to ocean voyaging. Studies methods for determining ETA of CPA by distance off; learn navigational techniques for ocean sailing and perform advanced ETA computations involving time conversion. Includes use of a sextant in determining position and range, measuring speed by RPM, fuel consumption and use of the speed log.

**Marine Engineering Technology**

**MTS 212 (4) C**  
**Auxiliary Machinery & Ship Design**

Intro to auxiliary machinery and naval architecture. Includes heat exchangers, pumps, air ejectors, steering gear, distilling plants, pressure vessels, piping systems, cargo handling equipment, vessel design, vessel structure and stability.

**MTS 217 (4) C**  
**Marine Diesel Engine Maintenance & Operation**

Theory, fundamental operating procedures, troubleshooting and repair of marine diesel engines. Applied training in diesel engine labs.

**MTS 221 (4) C**  
**Applied Marine Electricity**

Applied course in AC and DC motors, generator applications and electrical theory to typical marine equipment. Covers 3-phase circuits and transformers. Operate marine electrical equipment in the laboratory, on a panel board simulator and aboard SMA's training vessels (dockside). Prereq: MGO 127 or permission.

**MTS 228 (5) C**  
**Marine Hydraulics**

Emphasizes routine maintenance, troubleshooting and repair of marine hydraulic equipment. Disassemble, analyze and reassemble various hydraulic components through simulation models.

**MTS 233 (5) C**  
**Marine Refrigeration**

Fundamentals of refrigeration cycles, system components, common refrigerants, theory of operation and preventive maintenance techniques as they apply in the marine industry.

**MTS 257 (4) C**  
**Advanced Marine Diesel Engines**

Continuation of MTS 217. Advanced training in the disassembly and rebuilding of marine diesel engines. Special emphasis on air intake systems, fuel injectors, governors, lubrication systems, cylinder wear, ring wear, piston clearances, bearing wear and crankshaft alignment. Prereq: MTS 217.

**MTS 263 (3) C**  
**Propulsion Systems**

Focuses on the principles, operation, maintenance and repair of select propulsion systems. Includes design and application of engines and related systems such as fuel, lubricating, cooling, exhaust and heat recovery. Includes reduction gears, shafting, bearings and propellers.

**MTS 285 (3) C**  
**Marine Boilers**

Combines theory and applied training in operating steam boilers. Covers the principles, operation, maintenance and repair of marine boilers.

**MGO 127 (4) C**  
**Fundamentals of Marine Electricity**

Fundamentals of AC and DC electricity and elementary electronics. Focuses on basic theory, measurements and instruments, routine maintenance of electrical components and general operation of shipboard electrical systems. Prereq: MGO 119, MATH 101 or permission.

**MGO 147 (6) C**  
**Marine Engineering Practicum**

Introductory underway practicum. Receive an indoctrination to both watchstanding duties and shipboard responsibilities of a marine engineer. Covers how to read vessel blueprints, trace machinery systems and troubleshoot simulated malfunctions. Involves 12-hour voyages weekly aboard SMA's training vessels.

**MGO 177 (6) C**  
**Advanced Engineering Practicum**

Advanced underway practicum. Under supervision, assume the role of Designated Duty Engineer aboard ship and be responsible for all facets of the operation of the engine room and related equipment while the training vessel is underway. Demonstrate competency, proficiency and confidence in running an engine room without guidance. Involves weekly 12-hour voyages aboard SMA's training vessels. Prereq: MGO 147.

**Marine Fundamentals**

*Note: ENGL 105 - Applied English Composition - is a required course for the Marine Engineering Technology and the Marine Deck Technology Programs.*

**MGO 101 (2) C**  
**Principles of Marine Mechanics**

Provides training in proper use of hand tools, power tools (both hand and stationary) and measuring instruments commonly used in mechanical trades. Covers safe work practices, including safety equipment, work procedures, etiquette and regulatory considerations. Includes fastenings, bearings, seals, gasketing methods and other relevant materials and equipment.

**MGO 103 (3) C**  
**Survival Craft**

A study of survival craft commonly found aboard ships today. Training in lifeboat operation and handling congruous to that required for the U.S. Coast Guard rating of Lifeboatman. Includes lifeboat nomenclature and equipment, launching procedures, handling by oars, inflatables and other types of lifesaving equipment.

**MGO 105 (3) C**  
**Leadership & Management**

Examines relevant concepts and principles in management, leadership and organizational communication as they apply aboard ship. Emphasis on instilling an attitude and work ethic required to realize the objectives of "Social Responsibility" advocated by the STCW Code. Satisfies the General Education Requirement in human relations.

**MGO 111 (3) C**  
**Seamanship**

Study in seamanship to prepare for employment aboard ship. Includes training in seamanship congruous to that required for the U.S. Coast Guard rating of Able Seaman (AB). Includes nomenclature, ship structure, vessel equipment, deck fittings, knots and splices, rigging and watchstanding duties.

**MGO 113 (3) C**  
**Marine Safety**

Covers basic damage control, marine fire-fighting and other safety topics to prepare for employment in the marine industry. Includes stability changes to a damaged vessel, emergency repairs to hull and vessel systems, proper use of marine fire-fighting equipment, vessel safety equipment, shipboard emergency procedures and survival at sea.

**MGO 119 (3) C**  
**Marine Mathematics**

Reviews algebraic and trigonometric methods. Includes the basics of signed numbers, linear equations, fractions, percentages, plane geometry, measurement and variables which represent additional aspects of mathematics required to solve shipboard problems. Satisfies the General Education Requirement in computation. Prereq: Math placement exam or permission.

**MGO 200 (4-5) C**  
**At-Sea Internship**

Provides real-world at-sea experience on vessels of at least 500 gross tons that operate beyond the boundary line. During 30-60 day internship demonstrate mastery of the competencies outlined in Table A-II/4 of STCW for ratings forming part of navigational watch or Table A-III/4 of STCW for ratings forming part of an engineering watch.

**MTS 284 (2) C**  
**Shipboard Pollution Prevention**

Using a non-technical format, review issues in pollution prevention and control as they impact on the duties and tasks performed by deck and/or engineering personnel on-board ship.

**MTS 294 (2) C**  
**License Seminar**

Seminar on licensure knowledge requirements for deck/engineering candidates preparing to take the U.S. Coast Guard deck/engineering exams. Learn to consult and reference the Code of Federal Regulations, Title 46 and other publications.

**MARKETING**

**MKT 100 (1) S**  
**Marketing Keystone**

Online intro to marketing and business. Reviews terminology, communication basics and information needed to enter the professional field.

**MKT 110 (5) S**  
**Customer Service**

Develop skills in all aspects of dealing with customers: expectations, telephone techniques, responding to inquiries and complaints and follow-up. Learn how to attend to the needs and expectations of both internal and external customers. Emphasis on empathy, active listening and honesty in communication.

**MKT 115 (2-16) S**  
**Marketing Careers Seminars/DEC**

Ongoing exploration of the elements of leadership and accountability in the workplace through various group activities on and off campus. Join Delta Epsilon Chi, a national association for marketing and business students established specifically for the encouragement and development of leadership for the workplace. Prereq: Permission.

**MKT 197 (2-15) S**  
**Internship – Cooperative Education Field Experience**

Spend time in the field under the guidance of an instructor and on-site mentor. Learn about operations, policies, procedures, culture and behavioral standards in a given business, industry, shop, lab, store or other setting directly related to the student's course, program, certificate or degree. Prereq: Permission.

**MKT 201 (3) S**  
**Principles of Selling**

Explores nature and scope of selling and understanding buying motives with strong emphasis on the selling process: prospecting, pre-approach work, demonstration of products and services and closing. Develop selling skills through role-play, case studies and simulations. Recommended: SMG 265.

**MKT 205 (5) S**  
**Applied Advertising**

Investigates various advertising strategies used in media communication. Covers various types of advertising, planning, copy writing and production. Plan and develop an advertising campaign and produce related advertising material. Recommended: SMG 265.

**MKT 210 (5) S**  
**Entrepreneurship**

Study major steps, formation and growth for setting up a new small business or department, project, or contract within a large organization. Covers the characteristics of the entrepreneurial personality and the task of moving from concept to commercialization. Emphasis on leadership, time management and planning. Recommended: BUS& 101 or BUS 101 and SMG 265.

**MKT 215 (5) S**  
**Market Research**

Study the purpose, methods, principles and techniques of marketing research. Includes the research process: questionnaires, secondary and primary data, sampling, processing and interpreting data and the evaluation, and effective presentation of findings. Prereq: BUS& 101 or BUS 101 or permission. Recommended: SMG 265.

**MKT 298 (1-10) S**  
**Independent Study**

Provides an opportunity for research, advanced study, or special projects in the field, working independently under instructor guidance. Credits vary. Prereq: Permission.

**MKT 299 (2) S**  
**Marketing Capstone/Special Topics**

A study of an approved topic: marketing, sales, advertising, retail management, promotion, customer service, consumer behavior, marketing research, entrepreneurship or business communication. Project formats vary. Prereq: Permission.

**MATHEMATICS**

*Courses prepare students for advanced mathematics courses or application to work settings. Courses may include individual laboratory, lecture, or lecture/laboratory combination. Computers, graphing calculators, or both may be introduced and/or used. Collaborative learning may be emphasized. Consult with an advisor to determine how a particular class will be taught, its specific content and credits awarded.*

**MATH 070 (5) N**

**Basic Math Skills for Health Care Professionals**

Designed for advanced ESL (level 5 and above) and ABE students who plan to enter Allied Health programs at North. Includes math and critical thinking skills needed for success in health care courses. Covers whole numbers, fractions, decimals, ratios, percents, metrics, graphs, basic accounting and medicinal calculations. Particular attention is given to the health care context. Prereq: Instructor permission.

**Math Laboratory Courses**

• **NORTH** •

**MATH 080 (5 EA.) N**

**Lab Classes**

Individualized instruction in the following subjects to meet the student's specific needs and preparation: Arithmetic, Algebra I, Algebra II, Geometry, MATH 098 (with instructor permission) and preparation for vocational/technical math. May need to enroll in MATH 080 for more than one quarter in order to achieve individual objectives. Faculty and tutors assist in this laboratory format.

**MATH 080 A Arithmetic I**

**MATH 080 B Arithmetic II**

**MATH 080 C Algebra I**

**MATH 080 D Algebra II**

**MATH 080 E Algebra III**

**MATH 080 F Algebra IV**

**MATH 080 G Geometry I**

**MATH 080 H Geometry II**

**MATH 080 I Trigonometry**

**MATH 080 J Independent Study**



**Math Laboratory Courses****• SOUTH •****MATH 086 (5) S  
Geometry I**

Covers points, lines and angles, triangles, parallel lines, polygons, proofs on congruence and similarity of triangles. Calculator required. Prereq: MATH 085 with a 2.0 or higher.

**MATH 087 (5) S  
Geometry II**

Continuation of MATH 086. Covers perimeter and area of polygon, circles, three-dimensional (solid) geometry and intro to right triangle trigonometry. Calculator required. Prereq: MATH 086 with a 2.0 or higher.

**Math Lecture Courses****• NORTH • CENTRAL • SOUTH •**

*\*Indicates courses which are also offered as laboratory courses at South.*

**MATH 080 (5) S  
Arithmetic Skills****MATH 081 (5) C,N  
Basic Math Skills**

Covers whole numbers, fractions, decimals, percent, ratio and proportion, geometry and measurements and intro to algebra. Prereq: Math Placement Test.

**MATH 083\* (5) S  
Arithmetic**

High school-level course emphasizing the structure of the number system. Review of fundamental arithmetic, particularly the addition and subtraction of fractions and decimals. Intro to elementary algebraic concepts and primary concepts of probability, statistics and geometry. Reviews problem-solving strategies and applications. Prereq: Basic computational math skills.

**MATH 084\* (5) C,S  
Algebra I**

Basic operations with algebraic expressions; solving and graphing linear equations and inequalities; word problems; systems of equations. Prereq: MATH 081 or higher or placement exam (C).

**MATH 085\* (5) C,S  
Algebra II**

Factoring polynomials; rules of exponents; solving quadratic equations and graphs; roots and radicals; solving rational equations; problem-solving. Prereq: MATH 084 or higher or placement exam (C).

**MATH 084/085 SEQUENCE (5 EA.) C,N,S  
Algebra I & II, Express**

Real numbers, linear equations, linear inequalities, systems of linear equations in two variables, polynomials and factoring, rational expressions and equations, radical expressions and equations, quadratic equations and problem-solving. Prereq: MATH 081 or placement.

**MATH 089 (1-5) C,N,S  
Independent Study****MATH 090 (1-5) N  
Mathematics Workshop**

Review class to help students meet necessary prerequisites before taking a math class.

**MATH 097 (5) N,S  
Elementary Algebra**

Covers linear equations, linear inequalities, factorization, operations with polynomials, rational and radical expressions and the quadratic formula. Prereq: MATH 081 (N) or a math placement exam.

**MATH 098 (5) C,N,S  
Intermediate Algebra**

Covers linear, quadratic, exponential and logarithmic models with applications and other intermediate algebra skills. Prereq: MATH 085 or MATH 097 or placement test.

**MATH 100 (3) C,N  
Math for Health Careers**

Review of basic math and algebra for those entering the health field. Applications of concepts to calculate dosages, flow rates, infusion times and pediatric medication. Use of decimals, fractions, ratios, proportions and percents. Prereq: Math placement test.

**MATH 102 (5) C,N,S  
College Algebra**

For students in Math and Science. Bridges the gap between Intermediate Algebra and Pre-Calculus functions. Fulfills QSR requirement for A.A. degree. Strongly recommended in preparation for MATH& 141 or MATH 122 (S). Required for entry into MATH 120 (N). Prereq: MATH 098.

**MATH 103 (5) C,N  
Geometry & Visualization**

Uses physical and computer constructions to investigate Euclidian and some non-Euclidian geometry in 2 and 3 dimensions. Covers point, line and plane symmetry with examples from tilings, rosette groups, wallpaper patterns and symmetries of Polyhedra. Includes Platonic and Archimedean solids and the geometry of perspective drawing. Prereq: MATH 098 or placement test.

**MATH 104 (3) N  
Trigonometry**

For students with no high school trigonometry or who need a review. Elementary plane geometry, right triangle trigonometry, general angles, identities, equations and selected topics. Prereq: MATH 098 or placement exam.

**MATH 106 (5) N  
Applied Algebra & Trigonometry I**

Focuses on mathematical models and their applications. Includes study of right triangle trigonometry, introductory vector applications, linear functions, systems of equations and inequalities, quadratic functions, rational expressions and models, integral and rational exponents and radical and complex numbers. Equivalent in skill level to MATH 098. Prereq: MATH 097 or equivalent or placement test.

**MATH& 107 (5) C,N,S  
Math In Society**

(Formerly MAT 107 - Math for Liberal Arts) Primarily for liberal arts majors. Designed to enhance mathematics literacy. Instructors choose college-level topics centered around a theme such as Environmental Math, History of Math, or General Topics in Math. Fulfills QSR requirement for A.A. degree. Minimum 2.0 required to meet Intermediate Algebra proficiency and QSR. Prereq: MATH 098 or placement test.

**MATH 109 (5) C,N,S  
Elementary Statistics**

(Formerly MATH 240) Covers descriptive methods, probability and probability distributions, samples, decisions, hypothesis testing and statistical inferences. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or placement test.

**MATH 110 (3) C,S  
Applied Math for Technicians**

Emphasis on applications of mathematics to vocational and technical courses. Prereq: Satisfactory performance on Math placement test.

**MATH 111 (5) S**  
**Applied Mathematics I**

Intro to applied algebra, geometry and trigonometry. Includes algebraic operations, integral exponents, scientific notation, dimensional analysis, metric system, radicals, calculator fundamentals, first-degree equations, plane and solid geometry, solution of right triangles, systems of equations, graphs, determinants and applications. Prereq: Satisfactory performance on Math placement test.

**MATH 112 (5) S**  
**Applied Mathematics II**

Includes factoring, algebraic fractions, fractional and quadratic equations, rational exponents, operations with radicals, oblique triangles, law of sines and cosines and trigonometric graphs. Prereq: MATH 111 or permission.

**MATH 113 (5) S**  
**Applied Mathematics III**

Covers vector analysis, resolution of vectors, properties of logarithms, exponential and logarithmic equations, radical equations, analytic geometry, statistics, inequalities and applications. Prereq: MATH 112 or permission.

**MATH 115 (3) S**  
**Solutions to Word Problems in Algebra**

Helpful in business, technical, physics and college transfer courses. Covers systematic techniques for solution of algebraic word problems. Prereq: MATH 085 or concurrent enrollment.

**MATH 116 (5) C,N,S**  
**Applications of Mathematics to Management, Life & Social Sciences**

Emphasizes applications to business, finance, management, or life & social sciences. Covers mathematical models, graphs and exponential and logarithmic functions. May include ideas from statistics and probability. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or placement test.

**MATH 118 (5) N**  
**Applied Algebra & Trigonometry II**

Activity-based math course focuses on mathematical models and their applications. Includes the study of operations on functions, mathematical variation, exponential and logarithmic functions, numbers of other bases, trigonometric representation of complex numbers, polar coordinates and the trigonometry of oblique triangles. Prereq: MATH 098 or MATH 106.

**MATH 119 (3) C**  
**Mathematics Behind Information Technology**

Learn basic aspects of discrete mathematics common to information technology: scientific notation; binary and hexadecimal number systems; logical operations and the design of logical networks; set theory; relations and functions; combinatorics; graphs and directed graphs; regular expressions; and finite-state machines.

**MATH 120 (5) N**  
**Elementary Functions**

Studies the general nature of functions: polynomial, rational, exponential, logarithmic and trigonometric. Fulfills the QSR requirement for A.A. degree, except does not meet QSR at UW. Prereq: MATH 102 or MATH 098 (with grade of 3.5 or better) and high school trigonometry or placement.

**MATH& 141 (5) C,N,S**  
**Pre-Calculus I**

(Formerly MAT 122 - Pre-Calculus I, General Functions) Examines the general nature of polynomial, rational, exponential and logarithmic functions, and related functional and algebraic topics. Fulfills the QSR requirement for A.A. degree. Prereq: MATH 098 or placement test.

**MATH& 142 (5) C,N,S**  
**Pre-Calculus II**

(Formerly MAT 123 - Pre-Calculus II, Trig Functions, Etc.) A study of right triangle trigonometry, trigonometric functions, related trig applications, and topics in analytic geometry. Fulfills the QSR requirement for A.A. degree. Prereq: MATH& 141 or MAT 122 or Placement test.

**MATH& 148 (5) C,N,S**  
**Business Calculus**

(Formerly MAT 117 - Elements of Calculus) An intuitive and elementary treatment of differential and integral calculus. May include ideas from statistics and probability. Uses applications from business, finance, or life & social sciences. Fulfills QSR requirement for A.A. degree. Prereq: MATH 116 with a 2.0 or better or MATH 102 (S).

**MATH& 151, 152, 153**

*NOTE: Generally, institutions cover the same material over the entire sequence. However, some topics may be covered at different points in the sequence. It is recommended that students who transfer before completing the entire sequence should consult an advisor.*

**MATH& 151 (5) C,N,S**  
**Calculus I**

(Formerly MAT 124 - Calculus with Analytic Geometry) Covers limits, differentiation of algebraic and transcendental functions, definite and indefinite integrals, techniques of integration, vectors, vector-valued functions, multivariable calculus, partial differentiation, multiple integrals and applications. Each course fulfills the QSR requirement for A.A. degree. Prereq: MATH& 142 or MAT 123 (C) or placement test or MATH 120 (N).

**MATH& 152 (5) C,N,S**  
**Calculus II**

(Formerly MAT 125 - Calculus with Analytic Geometry) Covers limits, differentiation of algebraic and transcendental functions, definite and indefinite integrals, techniques of integration, vectors, vector-valued functions, multivariable calculus, partial differentiation, multiple integrals and applications. Each course fulfills the QSR requirement for A.A. degree. Prereq: MATH& 151 or MAT 124.

**MATH& 153 (5) C,N,S**  
**Calculus III**

(Formerly MAT 126 - Calculus with Analytic Geometry) Covers limits, differentiation of algebraic and transcendental functions, definite and indefinite integrals, techniques of integration, vectors, vector-valued functions, multivariable calculus, partial differentiation, multiple integrals and applications. Each course fulfills the QSR requirement for A.A. degree. Prereq: MATH& 152 or MAT 125.

**MATH 170 (5) C**  
**Math for Elementary School Teachers I**

Covers the mathematics elementary teachers are responsible for teaching at K-8 levels, including computing with whole numbers, fractions, decimals and percents; multiplicative comparisons and reasoning; ratio, rates, and proportions; negative numbers; algebra and graphing; relationships between time, distance and rate; patterns and functions. Fulfills the QRS requirement for A.A. degree. Prereq: MATH 098 with 2.0 or higher.

**MATH 171 (5) C**  
**Math for Elementary School Teachers 2**

Covers the mathematics elementary teachers are responsible for teaching at K-8 levels, including polyhedra, polygons, symmetry, tessellations, size changes, curves and curved surfaces, transformations, length, angles, area and surface area, volume, measure formulas, quantifying uncertainty, simulating probabilistic situations; sampling; and organizing and interpreting data with one and two variables. Prereq: MATH 170 with 2.0 or higher.

**MATH 172 (5) C**  
**Math for Elementary School Teachers 3**

Covers the mathematics elementary teachers are responsible for teaching at K-8 levels, including algebra and graphing; relationships between time, distance and rate; patterns and functions; quantifying uncertainty, simulating probabilistic situations; sampling; and organizing and interpreting data with one and two variables. Prereq: MATH 170 with 2.0 or higher.

**MATH 198 (1-5) C,N**  
**Mathematics Workshop**

A problem-solving workshop using math topics considered appropriate by the instructor. May include study skills, note-taking systems, test-taking strategies and group problem-solving approaches.

**MATH 215 (2) N,S**  
**Word Problems for MATH& 151 – Calculus**

Covers word problems. Develops critical thinking skills to transition between applied and theoretical calculus. May use new technologies for problem-solving. Enhances skills necessary to compete more successfully in math/science programs at four-year schools. Coreq: MATH& 151.

**MATH 216 (2) S**  
**Word Problems for MATH& 152**

Covers word problems. Develops critical thinking skills and bridges the gap between applied and theoretical calculus. May use new technologies for problem-solving. Enhances skills necessary to compete more successfully in math/science programs at four-year schools. Coreq: MATH& 152.

**MATH 220 (5) C,N,S**  
**Linear Algebra**

Intro to linear algebra and its implications. Includes systems of linear equations, matrices, determinants, vector spaces, inner product spaces, eigenvalue problems, similarity transformations and the Jordan form. Prereq: MATH& 153 or MATH 126 or higher or permission or concurrent enrollment.

**MATH 224 (5) C,N,S**  
**Vector Calculus**

Continuation of MATH& 153. Includes vector-valued functions, vector fields, line and surface integrals and the theorems of Green, Gauss and Stokes. Learn vector operators and the extension of the calculus to the vectors in 2-D and 3-D space. Fulfills the QSR requirement for A.A. degree. Prereq: MATH& 153 or MATH 126 or higher or permission or concurrent enrollment.

**MATH 238 (5) C,N,S**  
**Differential Equations**

Learn linear differential equations, second order differential equations, their applications, Leplace transforms and series solutions. Covers the elementary theory of differential equations and the interrelationship between pure mathematics and applied mathematics. Fulfills the QSR requirement for A.A. degree. Prereq: MATH& 152 or MATH 125 or higher; MATH& 153 or MATH 126 strongly recommended.

**MATH 298 (1-5) C,N,S**  
**Special Topics in Mathematics**

Problem-solving for special math topics. Prereq: Permission.

**MATH 299 (1-5) C,N,S**  
**Independent Study**

Independent study of problems or topics of special interest. Prereq: Permission.

**MEDICAL ASSISTING**

*Also see Medical Assistant program at SVI.*

*The Medical Assisting Program includes short options in Medical Office Administration, Medical Reception, Medical Transcription, Clinical Lab Assisting, Medical Fundamentals for Clinical Research Professionals, and Health Care Assistant Preparation.*

*There are basic health requirements needed for many Medical Assisting courses. See Advisor.*

**AHM 101 – 105 (1 EACH) N**

Series of 5 one-unit courses (to total 5 credits of Pathology) which cover a basic review of terminology, structure and basic anatomy, including cavities, regions, anatomical planes and directional terms for various systems and their related tests and procedures.

**AHM 101 (1) N**  
**Pathology 1 – Digestive System****AHM 102 (1) N**  
**Pathology 2 – Urinary & Reproductive Systems****AHM 103 (1) N**  
**Pathology 3 – Nervous, Musculoskeletal & Endocrine Systems****AHM 104 (1) N**  
**Pathology 4 – Cardiovascular, Respiratory, Blood, Lymph & Immune Systems****AHM 105 (1) N**  
**Pathology 5 – Skin & Senses Systems, Oncology & Radiology****AHM 117 (1) N**  
**Intro to Lab & Clinical Safety**

Covers safety, state and federal laws, regulations, organization, personnel and testing procedures of a laboratory. Includes requisitions, reports, specimen collection, infection, inflammatory and immune responses, infectious disease, standard precautions and quality control.

**AHM 118 (1) N**  
**Intro to Patient History, Medical Records & Documentation**

Covers medical records: starting a chart; entering data; charting methods; legal aspects; confidentiality; types of filing systems; and types of reports. Includes patient history and important information and components of a physical examination.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**AHM 124 (1) N  
Intro to Medical Transcription**

Intro to the career of medical transcription and the American Association for Medical Transcription. Covers transcription equipment and tools, basic guidelines, reports that are transcribed, turnaround time and correcting work. Presents the laws and ethics of medical transcription. Prereq: Successful completion of medical terminology or permission.

**AHM 140 (1) N  
Phlebotomy 2**

Presents more advanced techniques and increased skills in phlebotomy and difficult blood draws. Builds on skills learned in AMA 252. Prereq: AMA 252; health requirements.

**AHM 141 (1) N  
Lab Equipment & Measurements**

Intro to lab equipment, measurements and calculations related to lab specimen collection, processing and testing. Learn how math is used in collecting and preparing specimens, the use of military time, preparing reagents, dilution of specimens and calculating amount of preservative needed. Prereq: Assessment test score or placement into MATH 084/085 or 097 or higher; health requirements.

**AHM 142 (1) N  
Non-Blood Specimen Collection**

Covers knowledge and skills required to obtain specimens of body fluids or tissues other than blood. Includes techniques for collecting stool, sputum, urine, wound cultures and the preparation and testing of such specimens. Practice with other students. Prereq: Health requirements.

**AHM 151 (1) N  
OB/GYN/Pediatric Theory**

Learn theory of typical OB/GYN and pediatric office visits and procedures. Includes prenatal, pregnancy complications, parturition and postpartum, GYN exam and related conditions and procedures, measuring an infant or child, taking vital signs, collecting specimens, screening hearing and vision and common disorders of childhood.

**AHM 152 (1) N  
Theory of Exams by Body Systems**

Covers theory in various examinations and procedures grouped by body system, such as urinary catheterization, spirometry, visual acuity, irrigations, casting and removal, sputum collection and oxygen administration. Also includes symptoms of diseases in each system and intro to pathology.

**AHM 153 (1) N  
Theory of Medication Calculation & Administration**

Learn theory of calculating dosages and administering medications. Includes legal and ethical factors, medication order or prescriptions, dosages, drug labels, the six rights of drug administration and various routes to deliver medications.

**AHM 154 (1) N  
EKG Theory**

Covers theory and practicum of a standard electrocardiogram, including equipment, lead placement, basic interpretation of emergency conditions, the cardiac cycle and its relation to the tracing and artifacts. Covers basic theory of a stress EKG and Holter monitor.

**AHM 155 (1) N  
Phlebotomy Theory**

Learn theory for blood collection by venipuncture and capillary puncture, anatomy and physiology of the cardiovascular system, equipment needed for venipuncture and techniques.

**AHM 160 (1) N  
Proofreading & Editing**

Provides the basic skills for proofreading and editing medical documents, including language mechanics, steps of editing, proofreading guidelines and standard notations. Addresses legal and ethical considerations, such as editing that will not alter meaning and context. Prereq: Completion of medical terminology course or permission. Type 25 wpm and know MS Word.

**AHM 161 (1) N  
Medical Transcription Practice 1**

Provides practical experience in medical transcription and completing medical reports using recorded dictation. Use AHM 124 skills and word processing to produce accurate documents with increasing speed. Prereq: AMA 124 or permission.

**AHM 162 (1) N  
Medical Transcription Practice 2**

Gain complex practical experience in transcribing various medical reports using recorded dictation. Prereq: AHM 161 or permission.

**AHM 163 (1) N  
Medical Transcription Practice 3**

Gain complex practical experience in transcribing various medical reports using recorded dictation. Build speed and accuracy transcribing a wide variety of documents. Prereq: AHM 162.

**AHM 231 (1-3) N  
Exam Review & Preparation**

For those who have graduated an accredited medical assisting program and who are eligible to sit for the National CMA (Certified Medical Assistant) Exam offered through the AAMA (American Association of Medical Assistants). Variable credit lecture course that can be offered either on campus, or onsite at a facility that requests review for their employees.

**AHM 244 (1) N  
Intro to Imaging**

Intro to diagnostic imaging with an emphasis on radiology. Includes ultrasound, PET and CT scans, as well as MRI, radiation therapy and nuclear medicine. Radiology includes safety, contrast media, patient preparation and positioning.

**AMA 100 (1) N  
Intro to Healthcare**

Overview of medical specialties, types of practices and the members of the health care team. Explores personal characteristics, certifications, professional organizations, career opportunities and the role of managed care. Presents a brief history of medicine, as well as the effects of attitudes and culture on the delivery of health care. Prereq: Placement into ENGL& 101 or ENG 101 or completion of college English Composition within the last five years.



**AMA 101 (2) N**  
**Communications in Healthcare**

Intro to effective communication, both oral and written. Addresses basic psychology related to communication in health care and includes cultural perspectives on illness, life-threatening illness, stress and burnout. Focuses on communication skills required in a medical setting in order to recognize individual needs and ensure accuracy and quality of information exchanged.

**AMA 102 (1) N**  
**Legal Concepts**

Intro to legal terms and concepts related to ambulatory health care. Includes risk management, confidentiality, medical records, documentation, the physician's public duties and the principles of medical law terms and issues.

**AMA 103 (1) N**  
**Ethical Concepts**

Intro to ethical terms and concepts related to ambulatory health care. Includes medical, ethical and bioethical issues, AAMA Code of Ethics, AMA Ethical Guidelines, allocation of scarce resources, abortion and fetal tissue research, genetic engineering, artificial insemination and surrogacy and dying and death.

**AMA 104 (1) N**  
**Office Emergencies**

Provides knowledge of various emergency situations that may occur in a medical office or clinic and the related equipment and actions required of the health care team. Does not qualify for first aid certification, nor does it include practice in CPR.

**AMA 105 (1) N**  
**Asepsis & Infection Control**

Provides information vital to all health care workers in infection control in the ambulatory care setting. Includes the process and chain of infection, inflammatory and immune responses, stages of infectious disease, standard (and other) precautions, state and federal laws and regulations, medical and surgical asepsis, sterilization of instruments and equipment. Prereq: Health requirements.

**AMA 106 (1) N**  
**Patient History, Documentation & Physical Exam**

Covers first patient contact, including the patient history and important information and initiating the patient medical record and charting methods. Presents the components of a physical examination from the assistant's and physician's perspectives. Prereq: Health requirements.

**AMA 107 (1) N**  
**Vital Signs & Measurements**

Take a patient's temperature, pulse and respirations, blood pressure, height and weight. Practice in a simulated ambulatory care setting. Includes normal ranges and abnormalities, factors that affect the vital signs, the physiology of the vital signs and related material. Prereq: Health requirements.

**AMA 108 (1) N**  
**Nutrition & Developmental Basics**

Intro to nutrition and digestion through studying types of nutrients, how to read food labels, various life stages and nutrition, therapeutic diets and culture in relation to diet and nutrition.

**AMA 109 (1) N**  
**Pharmacology**

Explores principles of pharmacology, including history, origin, sources, properties, uses and effects of drugs on living organisms. Covers uses and names of drugs, regulations and legal classifications, the PDR and other drug reference sources. Examines drug actions, routes of administration and forms of drugs, as well as the storage and handling of medications and controlled substances and emergency medications.

**AMA 110 (1) N**  
**Intro to Lab Safety**

Focuses on safety, laws and regulations concerning the physician's office laboratory as well as an intro to the lab's departments, personnel and testing procedures. Covers quality control, lab requisitions and reports, specimen collection and the use of the microscope.

**AMA 112 (1) N**  
**Credentials & Employment**

Preparation for obtaining appropriate credentials, certification and registration, and for the examination. Focuses on the medical assistant and offers information on credentialing of various allied health professionals such as limited x-ray technician, lab assistant, medical transcriptionist, medical office manager and EKG technician. Develop a job search strategy, prepare a resume and cover letter, complete an employment application and learn about interviews.

**AMA 114 (1) N**  
**Basic Psychology Principles**

Covers principles of psychology as well as the various theories of Jung, Erickson and others. Studies influences on behavior including heredity, culture and environment. Prereq: 2.0 GPA and permission.

**AMA 115 (1) N**  
**HIV/AIDS**

Includes curriculum topics for a 7-hour HIV/AIDS education program as outlined by the Washington State Department of Health. Includes the etiology and epidemiology of HIV, transmission and infection control, testing and counseling, clinical manifestations and treatment, legal and ethical issues and psychosocial issues.

**AMA 116 (1) N**  
**Principles of IV Therapy**

Presents the theory of intravenous (IV) therapy and its application in ambulatory care. Includes related anatomy and site selection, equipment and supplies, ongoing maintenance, calculations, risks and complications. Also covers professional standards, national and state laws and the role of the medical assistant. Prereq: 2.0 GPA and permission.

**AMA 120 (1) N**  
**Front Office Basics**

Intro to medical front office responsibilities and functions. Covers the office environment as well as computer basics and their medical applications, telephone techniques and basic triage.

**AMA 121 (1) N**  
**Patient Scheduling**

Learn patient scheduling in an ambulatory care setting. Includes basic triage skills in gathering patient information verbally.

<b>AMA 122</b>	<b>(1)</b>	<b>N</b>	<b>AMA 175</b>	<b>(1)</b>	<b>N</b>	<b>AMA 240</b>	<b>(1)</b>	<b>N</b>
<b>Medical Records &amp; Correspondence</b>			<b>AP/Terminology/Pathology 6</b>			<b>GYN/Pediatrics</b>		
Addresses the scope of medical records procedures, from how to initiate a new patient chart to entering data in the chart. Covers legal aspects, various types of filing systems and types of reports filed in a medical record. Intro to types of business correspondence, computer applications, USPS rates and regulations and faxing.			<b>Nervous Systems</b>			Learn the theory and practice of assisting with typical OB/GYN and pediatric office visits and procedures. Includes prenatal visits, pregnancy complications, parturition and postpartum, GYN exam, measuring, vital signs, collecting specimens, screening hearing and vision and common childhood disorders.		
<b>AMA 123</b>	<b>(1)</b>	<b>N</b>	<b>AMA 176</b>	<b>(1)</b>	<b>N</b>	<b>AMA 241</b>	<b>(1)</b>	<b>N</b>
<b>Daily Financial Management</b>			<b>AP/Terminology/Pathology 7</b>			<b>Male Reproductive System/Gerontology</b>		
Learn medical practice daily financial tasks including both manual and computerized bookkeeping, banking documents and functions. Covers common tasks such as using petty cash and purchasing, accounts receivable and working with credit procedures.			<b>Endocrine System</b>			Presents various disorders, exams and procedures of the male reproductive system. Covers gerontology, including facts and biases about aging, physiological and psychological changes in each body system. Also addressed are memory- or visually-impaired elderly patients and the issue of elder abuse. Prereq: Health requirements.		
<b>AMA 125</b>	<b>(2)</b>	<b>N</b>	<b>AMA 177</b>	<b>(1)</b>	<b>N</b>	<b>AMA 242</b>	<b>(2)</b>	<b>N</b>
<b>Intro to Medical Insurance &amp; Coding</b>			<b>AP/Terminology/Pathology 8</b>			<b>Exams by Body Systems</b>		
Provides knowledge of the history and evolution of medical insurance in this country and the terminology necessary to understand and submit claims. Compares various types of medical insurance, as well as DRGs and MCO models and legal and ethical issues.			<b>Musculoskeletal System</b>			Theory and practice in various examinations and procedures grouped by body system. Includes urinary catheterization, spirometry, visual acuity, irrigations, casting and cast removal, sputum collection and oxygen administration. Presents signs and symptoms of diseases in each system. Prereq: Health requirements.		
<b>AMA 170 – 181</b>	<b>(1-13)</b>	<b>N</b>	<b>AMA 178</b>	<b>(1)</b>	<b>N</b>	<b>AMA 243</b>	<b>(1)</b>	<b>N</b>
<b>AP/Terminology/Pathology 1 – 12</b>			<b>AP/Terminology/Pathology 9</b>			<b>Rehabilitation</b>		
AMA 170-181 is a series of individual 1-unit courses which introduce anatomy, physiology, pathology, tests and treatments. Study basic medical word structure and language and practice spelling and pronunciation in each course.			<b>Cardiovascular System</b>			Intro to using physical and mechanical agents to aid patients. Covers the principles of body mechanics for the health care worker as well as transferring patients, assisting with ambulation and using assistive devices, therapeutic exercises and modalities. Emphasizes safety. Prereq: Health requirements.		
<b>AMA 170</b>	<b>(2)</b>	<b>N</b>	<b>AMA 179</b>	<b>(1)</b>	<b>N</b>	<b>AMA 245</b>	<b>(2)</b>	<b>N</b>
<b>AP/Terminology/Pathology 1</b>			<b>AP/Terminology/Pathology 10</b>			<b>Minor Surgery</b>		
<b>Intro</b>			<b>Respiratory System</b>			Learn theory and procedures for assisting a physician with minor surgery. Includes asepsis and sterile principles, surgical methods, common procedures, instruments, equipment, supplies, sterile field setup and the process. Focuses on the vital areas of patient education and consent, preparation and post-procedure follow-up care. Prereq: Health requirements.		
Cavities and regions of the body, anatomical planes and directional terms and divisions of the spine.			<b>AMA 180</b>	<b>(1)</b>	<b>N</b>			
<b>AMA 171</b>	<b>(1)</b>	<b>N</b>	<b>AP/Terminology/Pathology 11</b>					
<b>AP/Terminology/Pathology 2</b>			<b>Blood/Lymph System</b>					
<b>Skin &amp; Senses</b>			<b>AMA 181</b>	<b>(1)</b>	<b>N</b>			
<b>AMA 172</b>	<b>(1)</b>	<b>N</b>	<b>AP/Terminology/Pathology 12</b>					
<b>AP/Terminology/Pathology 3</b>			<b>Specialties: Cancer, Radiation, Pharmacology &amp; Psychiatry</b>					
<b>Digestive System</b>			<b>AMA 226</b>	<b>(1)</b>	<b>N</b>			
<b>AMA 173</b>	<b>(1)</b>	<b>N</b>	<b>Medical Insurance Coding I</b>					
<b>AP/Terminology/Pathology 4</b>			Provides practice in performing various medical insurance coding projects utilizing knowledge and skills obtained in AMA 125. Practice performing primarily ICD-9 and CPT coding, but includes all aspects of coding to simulate the process in an ambulatory health care setting. Prereq: AMA 125.					
<b>Male Reproductive/Urinary Systems</b>			<b>AMA 227</b>	<b>(2)</b>	<b>N</b>			
<b>AMA 174</b>	<b>(1)</b>	<b>N</b>	<b>Medical Insurance Billing</b>					
<b>AP/Terminology/Pathology 5</b>			Provides advanced practice in performing medical insurance billing using skills obtained in AMA 125. Practice more complex medical insurance billing to build coding skill and accuracy. Prereq: AMA 125 and AMA 226 (AMA 226 may be taken concurrently) or permission.					
<b>Female Reproductive System</b>			<b>AMA 230</b>	<b>(1)</b>	<b>N</b>			
			<b>Medical Office Management</b>					
			Intro to managing a medical office. Explore management styles, teamwork supervision, travel arrangements, time management, marketing, financial management, facility management and liability coverage. Create a procedure manual and a marketing brochure. Covers HR policies, hiring, training, evaluating, dismissing employees, conflict resolution, personnel records and laws.					

**AMA 246 (1) N**  
**Patient Prioritizing & Instruction**

Covers accurate prioritizing of patients and good patient instruction. Using effective oral and written communication, learn to prioritize a patient's needs by phone or in-person and to interview them. Explain general office policies and general information, instruct in health maintenance, teach about disease prevention and locate community resources. Prereq: 2.0 GPA and permission.

**AMA 250 (2) N**  
**Medication Calculations & Administration**

Learn theory and practical procedures in calculating medication dosages and administering medications. Includes legal and ethical factors, the medication order or prescription, dosages, drug labels, calculating dosages, the six rights of drug administration and various routes to deliver medications. Practice giving oral medications, various parenteral routes and injections intradermally, subcutaneously and intramuscularly. Prereq: Health requirements.

**AMA 251 (1) N**  
**EKG**

Learn theory and practical procedures for performing a standard electrocardiogram. Includes the equipment, lead placement, basic interpretation of emergency conditions, the cardiac cycle and its relation to the tracing and artifacts. Includes the basic theory of a stress EKG and Holter monitor, although not practiced. Prereq: Health requirements.

**AMA 252 (2) N**  
**Phlebotomy**

Learn theory and practical experience in procedures for blood collection by venipuncture and capillary puncture. Covers the anatomy and physiology of the cardiovascular system, equipment needed and technique. Includes patient interaction, site selection, safety, evacuated tube vs. syringe method, use of a butterfly collection system, capillary puncture and troubleshooting the unsuccessful venipuncture. Prereq: Health requirements.

**AMA 253 (1) N**  
**Hematology**

Learn the theory and practical procedures in hematology testing for the physician's office laboratory. Tests include white and red blood cell counts, white cell differential, erythrocyte indices, erythrocyte sedimentation rate and automated hematology. Also covers specimen preparation, testing, quality assurance, normal ranges of results and documentation. Prereq: Health requirements.

**AMA 254 (1) N**  
**Urinalysis**

Covers the importance of urinalysis in the diagnosis and treatment of various diseases and how to correctly perform a urinalysis. Includes safety, quality control, equipment and supplies, collection methods and the examination of urine physically, chemically and microscopically. Prereq: Health requirements.

**AMA 255 (1) N**  
**Basic Microbiology**

Intro to the basics of microbiology as related to the medical assistant in a physician's office laboratory. Includes classification, cell structure, equipment, safety, specimens, collection procedures and the microscopic examination of bacteria. Covers culture media and the microbiological culture, biochemical tests, identification systems, sensitivity testing, parasitology and mycology. Prereq: Health requirements.

**AMA 256 (1) N**  
**Lab Tests & Chemistry**

Includes a variety of lab tests not covered elsewhere including pregnancy testing, infectious mononucleosis, blood typing, semen analysis, phenylketonuria, tuberculosis, blood glucose, cholesterol, triglycerides and blood urea nitrogen (BUN) testing. Learn theory, procedure, equipment, supplies, values and safety. Perform the tests in the classroom laboratory. Prereq: Health requirements.

**AMA 290 (7) N**  
**Medical Assisting Externship**

Provides the opportunity to practice (unpaid) Medical Assisting skills and gain valuable experience in the ambulatory health care setting. Share experiences and information. On the site, the student is guided by the extern site supervisor in performing various administrative and clinical tasks as expected of an entry-level medical assistant. Requires 198 unpaid hours in the clinical setting. Prereq: Permission.

**AHE 290 (7) N**  
**Medical Assistant Externship**

232 hours of unpaid experience in a medical office.

**MEDICAL OFFICE CLERK**

See *Business Program at South*, page 142.

**METEOROLOGY****MEY 100 (5) C,N,S**  
**Meteorology**

Intro to the composition, structure, motions and origin of the atmosphere; forecasting; climates and how they have changed through time; and effects of human activities on weather and climate.

**MEY 298 (1-5) C,N**  
**Special Topics**

Seminar on selected topics or activities in meteorology. Prereq: MEY 100 or permission.

**MEY 299 (1-5) C,N**  
**Independent Study**

Independent study of approved topics in meteorology. Prereq: MEY 100 and permission.

**MUSIC****MUSC 100 (5) C,N,S**  
**Music in the Western World**

Intro to classical music. Provides an understanding of musical expression through works of the great composers. Emphasizes music listening through recordings, films and special performances.

**MUSC 106 (5) S**  
**Experience Rhythm**

(Formerly MUS 105) Learn the basics of rhythm for a variety of musical styles. Create your own rhythm-based music, such as drumming, rap and dance music. Open to everyone.

**MUSC 109 (5) S**  
**World Beat: Global Studies Through Music**

Examines societal beliefs, identity, history, world view, values and aspirations expressed by selected non-Western cultures (or groups within these cultures) through music. Features both traditional and contemporary popular music.

**MUSC 110 (5) C,N,S**  
**Intro to World Music**

Covers the music of selected societies of the world within their cultural context. Using musical concepts on a cross-cultural basis, examine various cultural areas and societies.

<b>MUSC 113</b> (5) N	<b>MUSC 128</b> (2) C,N,S	<b>MUSC&amp; 142</b> (5) C,N,S
<b>Music in the United States</b> Overview of musical developments in the United States from Colonial times to the present, using live performances, videotapes and recordings. Examines contributions of ethnic/minority groups and the relevant social issues connected with these musical experiences.	<b>Intermediate Group Piano II</b> (Formerly MUS 123 - Beginning Group Piano - 3rd Qtr) Continuation of MUSC 127. Prereq: MUSC 127 or MUS 122 or permission.	<b>Music Theory II</b> (Formerly MUS 102 - First Year Theory) Continuation of MUSC& 141. Elementary harmony and ear training including 4-part harmony. Prereq: MUSC& 141 or MUS 101 or MUS 125, or permission.
<b>MUSC 116</b> (5) C,S	<b>MUSC 130, 134-139, 171-173</b> (1-2 EA) C,N,S	<b>MUSC&amp; 143</b> (5) C,N,S
<b>Rock Music – History</b> Examines rock music as a musical, social, cultural, economic and political force in the United States. Emphasizes early rock music development. Fulfills the Integrated Studies requirement.	<b>Individual Instruction Series</b> Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.	<b>Music Theory III</b> (Formerly MUS 103 - First Year Theory) Continuation of MUSC& 142. Prereq: MUSC& 142 or MUS 102.
<b>MUSC 117</b> (5) S	<b>MUSC 134</b> (1-2) C,N,S	<b>MUSC 144</b> (2) S
<b>Rock Music II</b> Examines rock music as a musical, social, cultural, economic and political force in the United States. Emphasis on the later decades of rock music development.	<b>Individual Instruction: Woodwinds</b>	<b>Vocal Jazz Ensemble</b> Small vocal ensemble which performs jazz music.
<b>MUSC 119</b> (2-3) C,N,S	<b>MUSC 135</b> (1-2) C,N,S	<b>MUSC 145</b> (2) C,S
<b>Beginning Group Instruction – Voice</b> Emphasis on beginning techniques of breath control, placement of tone, posture and other basic concepts. Recommended: enrollment in MUSC 125 for students without experience in reading music (C,S).	<b>Individual Instruction: Percussion</b>	<b>Pop Vocal Ensemble</b> Singing group featuring pop, Broadway show tunes and jazz. Focus on enjoyment and enrichment. Performances quarterly.
<b>MUSC 120</b> (2) C,S	<b>MUSC 136</b> (1-2) C,N,S	<b>MUSC 146</b> (5) C
<b>Intermediate Group Instruction – Voice</b> Continuation of MUSC 119. Prereq: MUSC 119 or permission.	<b>Individual Instruction: Composition</b>	<b>Jazz Ensemble I</b> Jazz Ensemble is the Jazz performance group for Seattle Central. Participate in jazz combo, duo, trio, quartet and big band settings. Music drawn from representative genres, composers and performers. Prereq: Ability to play an instrument and sight read music at a 12th grade level or higher.
<b>MUSC 125</b> (5) C,N,S	<b>MUSC 137</b> (1-2) C,N,S	<b>MUSC 147</b> (5) C
<b>Fundamentals of Music</b> Intro to reading and writing music for non-majors. Builds musical knowledge and skills to complement student's natural music ability.	<b>Individual Instruction: Harpsichord</b>	<b>Jazz Ensemble II</b> Continues the study of jazz performance repertoire, musicianship and technical skills from MUSC 146. Provides opportunity to learn the art of ensemble playing and singing in the jazz idiom. Focuses on small group and large ensemble rehearsal techniques, practice routines and improvisation. Prereq: Ability to sight read music at a 12th grade level or higher.
<b>MUSC 126</b> (2) C,N,S	<b>MUSC 138</b> (1-2) C,N,S	<b>MUSC 148</b> (5) C
<b>Beginning Group Piano</b> (Formerly MUS 121 - Beginning Group Piano - 1st Qtr) Laboratory course for the general student to develop technical proficiency and sight-reading skills.	<b>Individual Instruction: Guitar</b>	<b>Jazz Ensemble III</b> Provides opportunity to perform in a small-combo and big band jazz ensemble. Explores the literature associated with modern jazz composers such as Dizzy Gillespie, Herbie Hancock, Thelonious Monk, Charles Mingus, Chick Corea and more. Examine and perform avant-garde and contemporary jazz styles in a small group setting. Prereq: Ability to read music at a 12th grade level or higher.
<b>MUSC 127</b> (2) C,N,S	<b>MUSC 139</b> (1-2) C,N,S	
<b>Intermediate Group Piano I</b> (Formerly MUS 122 - Beginning Group Piano - 2nd Qtr) Class piano for students with previous keyboard experience. Prereq: MUSC 126 or MUS 121 or permission.	<b>Individual Instruction: Intermediate Guitar</b>	
	<b>MUSC 171</b> (1-2) C,N,S	
	<b>Individual Instruction: Piano</b>	
	<b>MUSC 172</b> (1-2) C,N,S	
	<b>Individual Instruction: Strings</b>	
	<b>MUSC 173</b> (1-2) C,N,S	
	<b>Individual Instruction: Brass</b>	
	<b>MUSC 140</b> (1-5) C,N,S	
	<b>College Choir</b> Focus on musicianship, vocal techniques and performance skills for the large choral ensemble through study of literature from all stylistic periods. Present one concert per quarter in various musical styles and cultures. Daily attendance required. Course may be repeated for up to 15 credits. Prereq: Ability to match pitch.	
	<b>MUSC&amp; 141</b> (5) C,N,S	
	<b>Music Theory I</b> (Formerly MUS 101 - First Year Theory & Ear Training) Covers rudiments of music notation, scales, intervals and triads, rhythmic and melodic sight-reading and dictation. Increases simple four-part writing and analysis and correlated keyboard exercises. For music majors and minors.	



**MUSC 149 (2) N**  
**Jazz Combo**

Performance class requiring reading and improvisational skills. Develops small ensemble skills in the jazz musician as a vocalist or instrumentalist.

**MUSC 150 (1-5) N,S**  
**Studio Jazz Orchestra**

Emphasis on big band concept. Covers style and performance techniques. Prereq: Performance ability.

**MUSC 151 (2-3) C,S**  
**The Performance Experience**

Instruction on presenting a public performance—the skills beyond the notes. Work as soloists or in small combinations. For chamber music groups, folk ensembles, traditional, ethnic groups and acoustic jazz groups. Prereq: Performance ability.

**MUSC 153 (1-2) N**  
**Contemporary Jazz Ensemble**

Membership by audition. Combines talents of professional and student musicians in the big-band experience. Practice and perform in concert the newest big-band arrangements which cover all styles of big-band jazz. Evening rehearsals. Prereq: Ability to perform at group level and permission.

**MUSC 154 (1-2) N,S**  
**Symphonic Band**

Features the finest in Wind band literature, both contemporary and traditional. Membership by audition.

**MUSC 156 (5) C**  
**Jazz Improvisation I**

Develops skills in improvisation and confidence in playing or singing in solo and combo settings, representing standard compositions from the art of jazz. Prereq: Ability to sight read music at a 12th grade level or higher.

**MUSC 157 (5) C**  
**Jazz Improvisation II**

Continues study of jazz improvisation with theoretical and technical concepts relating to the art of spontaneous improvisation. Work closely within a professional performance setting and learn the skills necessary for individual and group interaction in the traditional jazz combo and large ensemble presentations. Prereq: Knowledge of major/minor scales and basic keyboard skills.

**MUSC 158 (5) C**  
**Jazz Improvisation III**

Augments repertoire by studying compositions of modern jazz improvisers such as Chick Corea, Herbie Hancock and Wayne Shorter. Learn techniques associated within the style and receive instruction on the fundamentals, repertoire and technical studies introduced in MUSC 156 and 157. Recommended: MUSC 157. Prereq: Knowledge of major/minor scales, modes and basic keyboard skills and permission.

**MUSC 160 (5) S**  
**The Blues & its Influence**

Explores the development of the blues and its influence on jazz, rock, classical music and literature. Covers the social, economic and political forces that shaped African-American experiences in the U.S. as chronicled in blues music.

**MUSC 161 (5) C,S**  
**American Popular Music**

History of American popular music from colonial times to contemporary styles. Analysis of musical characteristics, as well as social/cultural contexts of development.

**MUSC 163 (5) C**  
**Musical Theater Stage Performance**

Covers principles of voice production, resonance and projection. Learn effective presentation of varied materials. Fills the gap between the teacher's studio and professional performance.

**MUSC 164 (2) S**  
**College Chorus/South Singers**

(Formerly MUS 141) Vocal ensemble. May be repeated for additional credit.

**MUSC 165 (1-2) S**  
**Community Chorale**

(Formerly MUS 142) Performs literature for the large choral ensemble. Meets one evening weekly.

**MUSC 166 (2) N,S**  
**Vocal Ensemble**

(Formerly MUS 143) Small vocal ensemble performs music from several different periods, including contemporary.

**MUSC 171, 172, 173**  
**Individual Instruction Series**  
*See MUSC 130.***MUSC 182 (4) N**  
**Intro to Musical Theater Production**

Basic instruction in dramatic and vocal discipline of musical theater. Learn basic techniques of analysis, rehearsal and performance of musical theater through the study of scenes and in-class performance. Recommended: MUSC 119, 130 and/or DRMA& 101 or DRA 100 or 121.

**MUSC 185 (5) C**  
**Computer Music & Recording**

Intro to the technical skills of electronic music production and recording. Covers the basic elements of music including listening, improvising, recording, arranging, mixing and digital editing. Create original music using stimuli. Learn mixing and audio production, including sound shaping, effects use and midi sequencing. Open to all students.

**MUSC 204 (5) C,N**  
**History of Jazz**

Traces the roots of jazz in America, through films, lectures, recordings and live performances. Includes Rag, New Orleans, New York, Chicago, Kansas City, the Big Band era, Blues, Be-bop, Hard Bop, the New Thing, Free Form, Electric and Fusion Styles.

**MUSC 205 (5) N**  
**Jazz Masters of the Twentieth Century**

A music literature course for the general student who wishes to study jazz music in more depth. Lectures, selected readings and major recordings by each artist.

**MUSC 213 (3) N**  
**Music History - Post 1830 Romantic**

Chronological survey of Romantic Period. Emphasis on stylistic and historical trends through extensive listening, class discussion, and illustrated lectures.

**MUSC 221 (2) C,N,S**  
**Advanced Group Instruction: Piano**

(Formerly MUS 221 - Group Piano - 1st Qtr) Continuation of MUSC 128. Technique, repertoire and theory, with emphasis on classical compositions. Prereq: MUSC 128 or MUS 123 or permission.

**MUSC 222 (2) C,N,S**  
**Advanced Group Instruction: Piano**

(Formerly MUS 222 - Group Piano - 2nd Qtr) Continuation of MUSC 221. Prereq: MUSC 221 or permission.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**

HIN . . . . . Watch Technology

**NAME TO PREFIX**

Watch Technology . . . . . HIN

**MUSC 223 (2) C,N,S****Advanced Group Instruction: Piano**

(Formerly MUS 223 - Group Piano - 3rd Qtr)  
Continuation of MUSC 222. Prereq: MUSC 222 or permission.

**MUSC& 231 (3) C,N,S****Music Theory IV**

(Formerly MUS 201 - Second Year Theory)  
Continuation of MUSC& 143, completing the periods up to Impressionism. Chromatic harmony, modulations and related modern concepts. Prereq: MUSC& 143 or MUS 103.

**MUSC& 232 (3) C,N,S****Music Theory V**

(Formerly MUS 202 - Second Year Theory)  
Continuation of MUSC& 231. Advanced 4-part harmony, especially relating to form and development. Prereq: MUSC 231 or MUS 201.

**MUSC& 233 (3) C,N,S****Music Theory VI**

(Formerly MUS 203 - Second Year Theory)  
Continuation of MUSC& 232. Advanced music theory and practice from common practice to chromatic harmony. Prereq: MUSC& 232 or MUS 202.

**MUSC 298 (1-5) C****Practicum in Music**

Practicum in various skills in music, such as tutorial assistant in piano theory, coaching vocal students or apprenticeship in use of electronic equipment (Broadway Performance Hall).

**MUSC 299 (1-5) C,N,S****Practicum in Music**

Research musical performance in an area of interest determined by student and instructor. Prereq: Permission.

**NANOTECHNOLOGY****NANO 101 (5) N****Intro to Nanotechnology**

Intro to nanotechnology principles, applications, industry, ethics and careers. Includes basic concepts of nano/microelectronics-mechanical materials and their properties; applications of these materials to electronics, magnetics, mechanics, fluidics, optics, photonics and smart biological materials. Covers micro and nano sensors and actuators and processing, fabrication, modeling and testing. Prereq: MATH 098.

**NANO 150 (5) N****Internship/Practicum**

Hands-on training in nano/micro-fabrication facility. Complete a design and fabrication project related to nano/micro-device and document and report on the project. Prereq: NANO 101, CHEM& 121 or CHE 101, PHYS& 121 or PHY 101 or permission.

**NANO 210 (5) N****Laboratory Procedures & Quality Control**

Learn the methodology and practices used in the nano/micro fabrication laboratory and production environments. Includes data collection and analysis, experimental design, quality and process control, cleanroom protocols, chemical hygiene, health and environmental impacts of chemical waste and special considerations for nano material waste. Prereq: NANO 101, CHEM& 121 or CHE 101 and MATH 109 or permission.

**NANO 220 (5) N****Materials Deposition & Characterization**

Learn the deposition and characterization technologies used in the nano/micro fabrication laboratory and production environments. Includes methods of physical and chemical materials deposition and lithography, materials composition and properties analysis and the vacuum technology required for materials fabrication. Prereq: NANO 101, CHEM& 121 or CHE 101 & MATH 098 or permission.

**NANO 230 (5) N****Nano/Micro Device & Material Fabrication & Testing**

Intro to device and material fabrication, packaging and testing. Covers fabrication of electrical, mechanical and optical micro/nano devices; nanomaterials and structures; biologically interactive nanostructures; and packaging and testing of nano and micro devices, materials and structures. Prereq: NANO 220, CHEM& 122 or CHE 120 with a 2.0 or higher and MATH 098 with 2.0 or higher or permission.

**NANO 250 (5) N****Capstone/Practicum II**

Hands-on training in a nano/micro fabrication facility. Complete a design and fabrication project related to a nano/micro-device and document and report on it. Prereq: NANO 150 and either NANO 210 or 220 or permission.

**NEW MEDIA****NME 110,120,130 (6 EA) C****Integrated Media Communications**

For students in Apparel Design & Services, Graphic Design, Commercial Photography and Publishing Arts. Project-based three-quarter course includes design and production of a magazine. Provides beginning students with design and business principles, writing, computational and teamwork skills.

**NETWORK TECHNOLOGIES**

*Also See Network Technician at SVI.*

*North courses formerly listed as NET are now listed under Information Technology (IT).*

*Courses are designed to prepare a student to meet IT industry benchmarks and vendor certification programs.*

**NET 120 (5) C****Network Essentials – CompTIA Network +**

Intro to networking technologies for local area networks (LANs), wide area networks (WANs) and the Internet. Prereq: MIC 101 or ability to use MS Office.

**NET 122 (5) C****Network OS 1 – Windows Client Systems**

Learn to install and configure Microsoft Windows on stand-alone and client computers that are part of a workgroup or domain and those required for Implementing a Microsoft Windows Network Infrastructure. Prereq: NET 120 with 2.0 or higher or permission.

**NET 124 (5) C**  
**Network OS 2 – Windows Server**

Learn to install Windows Server and various file systems and to administer and manage Active Directory services and objects. Use Microsoft Management Console to monitor system performance and to administer Internet Information Services and user accounts, group accounts and group policies. Study print services, network protocols, virtual private networking, Routing and Remote Access Service, DHCP, WINS and DNS. Learn to back up data, implement disaster protection and recover from a disaster. Prereq: NET 122 with 2.0 or higher or concurrent enrollment in NET 122.

**NET 126 (5) C**  
**Network OS 3 – Windows Network Infrastructure**

Continuation of NET 124. Covers capacity planning, directory services, group policies, multiple domain management, trust relationships, implementing RAS, ipsec, interoperating with various network operating systems. Prereq: NET 124.

**NET 134 (5) C**  
**Network Communications – Enterprise TCP/IP**

Learn to set up, configure, use and support Transmission Control Protocol/Internet Protocol (TCP/IP) on major operating systems used in a networked environment. Emphasis on DNS for directory systems and ports for service availability, troubleshooting network connectivity, bandwidth management and optimization. Prereq: NET 124 (may be taken concurrently) or permission. Eligible for MATH 098

**NET 138 (5) C**  
**Linux for Network Administration**

Covers the organization of Linux-based hardware components and software tools used by the host administrator to control access, tune the system, and account for system resources used. Focuses on Linux tools, network schedulers, security, remote access, performance monitoring, and networking aspects of Linux. Includes multi-user, multi-tasking, time-sharing networked communications, and setup and maintenance of an Internet server. Prereq: CIS 136 or permission.

**NET 142 (5) C**  
**Network Management – Cisco I**

Provides experience in current and emerging networking technology for future employment and/or further education. Content standards based on current industry standards. Examines safety, networking, network terminology and protocols, LANs, OSI model, cabling, cabling tools, IP addressing and network standards. Emphasis on decision-making and problem-solving techniques. Prereq: NET 122 (may be taken concurrently) or permission.

**NET 144 (5) C**  
**Network Management – Cisco II**

Continuation of NET 142. Covers safety, networking, network protocols, LANs, WANs, Ethernet, LAN switching, router IOS, TCP/IP addressing, router configuration, dynamic routing, static routing and the network administrator's role and function. Emphasis on techniques to solve networking problems. Prereq: NET 142.

**NET 146 (5) C**  
**Network Management – Cisco III**

Continuation of NET 144. Extends knowledge and practical experience with configuring LANs, hubs, switches, Novell Networks, Internet-work Packet Exchange (IPX) routing, Interior Gateway Routing Protocol (IGRP), Wide Area Networks (WANs) and network troubleshooting. Covers Integrated Services Data Networks (ISDN), Point-to-Point Protocols (PPP) and frame relay design, configuration and maintenance. Prereq: NET 142, 144 or permission.

**NET 200 (10) C**  
**Enterprise Applications**

Investigate managing and maintaining enterprise applications in an integrated computing environment, focusing on the user experience as server application access crosses the enterprise LAN / WAN security boundaries. Uses a small business scenario to survey software tools and applications using a client server environment like Microsoft's Small Business Server. Prereq: NET 126 w/ 2.0 or better or instructor permission.

**NURSING**

*Also see Acute Care Hospital Nursing Assisting Program and Certified Nursing Assisting Program at SVL, page 164.*

*NOTE: Most courses require concurrent enrollment. Please check program section for specific requirements.*

**Nursing Assistant - North**

**NUR 107 (12) N**  
**Nursing Assistant - Certified**

Covers basic nursing care skills including CPR, HIV/AIDS, and 72 hours of supervised clinical training in a long-term care facility. After successful completion students are eligible to take the Washington State NAC exam for certification as a Nursing Assistant. Prereq: CASSAS 220 minimum score (reading & listening) or COMPASS 40 minimum reading score within last 3 years.

**Licensed Practical Nursing - North**

**NUR 099 (2) N**  
**Intro to Critical Thinking in Nursing Practice**

Intro to beginning general critical thinking skills needed in nursing. Prereq: Successful completion of ENGL& 101 or ENG 101 (2.0 or better).

**NUR 116 (6) N**  
**Nursing Fundamentals**

Intro to nursing fundamentals, theoretical background for basic nursing skills and processes. Prereq: Permission.

**NUR 117 (3) N**  
**Nursing Fundamentals Laboratory**

Intro to nursing skills and procedures. Includes demonstration, laboratory practice and supervised clinical experience. Covers beginning communication skills.

**NUR 118 (2) N**  
**Clinical Nursing Skills I**

Covers theory and laboratory work associated with NUR 131. Intermediate level nursing practice.

**NUR 119 (1) N**  
**Clinical Nursing Skills II**

Continuation of NUR 118; theory and labs associated with NUR 141.

**NUR 124 (5) N**  
**Fundamentals of Anatomy & Physiology**

Intro to structure and function (anatomy and physiology) of the human body. Provides foundation for clinically related subjects including nutrition and pathological body conditions. Prereq: Permission.

**NUR 126 (1) N**  
**Legal Aspects & Career Opportunities**

Covers role of the practical nurse on the health team. Examines legal responsibilities, licensure, career opportunities, nursing organizations and trends. Prereq: Permission.

**NUR 127 (6) N**  
**Medical/Surgical Nursing – Child/Adult I**

Covers common conditions of illness throughout the life span. Prereq: All first-quarter NUR courses. Coreq: NUR 131 and permission.

**NUR 128 (6) N**  
**Medical/Surgical Nursing – Child/Adult II**

Continuation of NUR 127. Prereq: NUR 127 and permission.

**NUR 130 (3) N**  
**Critical Thinking in Nursing Practice**

Intro to critical thinking skills in the practice of nursing. Coreq: NUR 116 and 117.

**NUR 131 (3.5) N**  
**Clinical Nursing Practice I**

Supervised hospital and nursing home practice in medical/surgical care of the child/adult and chronic and convalescent patients. Prereq: All first-quarter NUR courses.

**NUR 133 (3) N**  
**Family Nursing Theory**

Study care of the mother and the newborn including prenatal, labor and delivery and postnatal nursing. Prereq: Fourth-quarter standing.

**NUR 134 (2) N**  
**Family Nursing Clinical**

Application of practical nursing care in a maternity unit, delivery room and newborn nursery. Prereq: Fourth-quarter standing and concurrent enrollment in NUR 133.

**NUR 139 (1) N**  
**Senior Experience**

A four-day, full-time clinical assignment. Provides experience in full-shift nursing care on a work-like schedule. Expands medical/surgical nursing experience. Prereq: Fourth-quarter standing.

**NUR 141 (3.5) N**  
**Clinical Nursing Practice II**

Supervised hospital and nursing home practice with related ward conferences, to expand basic nursing care skills for the convalescent and chronically ill patient, medical/surgical patient, child or adult. Prereq: All first and second quarter classes.

**NUR 151 (2.5) N**  
**Basic Pharmacology I & Pharmacy Calculations**

Covers basic medications currently used, major drug classifications, generic and brand names, dosages, side effects and other drug interactions. Prereq: Permission.

**NUR 152 (2.5) N**  
**Basic Pharmacology II**

Continuation of NUR 151. Prereq: Permission.

**NUR 153 (.5) N**  
**Administration of Medications**

Application of NUR 151 and 152 to clinical setting. Prereq: NUR 151, NUR 152 and third-quarter of practical nursing program.

**NUR 154 (1) N**  
**Intravenous Therapy Skills**

Intermediate course in intravenous therapy which provides theoretical background for intravenous infusion and clinical application skills using the nursing process. Prereq: Enrollment open to licensed nurses and medical assistants with division and instructor approval.

**NUR 155 (1-6) N**  
**Special Topics in Practical Nursing**

Assists foreign students, pre-nursing and advanced placement students to meet special needs for licensure or other student interests. Tailored to meet State Board (LPN) or faculty recommendations to accomplish student/program objectives. Prereq: Permission.

**Licensed Practical Nursing - South****NUR 098 (1-2) S**  
**Intro to Applying Academic Study Strategies**

Intro to the learning strategies, thinking and metacognitive skills necessary for success in health care and nursing. Students are mentored while they apply what they learn. Core: concurrent enrollment in LPN pre-requisites. Prereq: Admission into the health care Pathways program.

**NUR 170 (12) S**  
**CNA– Basic Health Care**

Covers basic health care concepts needed to provide nursing care to adults, including maintaining and monitoring patient's health status, clinical AIDS training and CPR. Covers the nurse's role in aspects of aging and disability. Provides clinical experience in a variety of long term care settings. Prereq: CASAS score of 220 or higher in reading and math and attend a CNA orientation at SSCC.

**NUR 171 (12) S**  
**LPN I Fundamentals of Nursing**

Covers concepts of health and wellness, foundations, history, legal ethical principles, and professional and personal boundaries of nursing. Includes medical terminology, total body assessment, nursing process, care plan, critical thinking and communication techniques. Covers health assessment of the body systems, promotion of health across the life span, basic needs of patients, and grief; loss and dying. Studies Integumentary, Gastrointestinal and Urinary Systems. Prereq: CNA certificate and all program prerequisites.

**NUR 172 (12) S**  
**LPN II Medical Surgical Nursing I**

Analysis and integration of cross-cultural concepts into the nursing process. Covers the pathophysiological concepts of medical surgical nursing, causation of illness and response of the body to current treatment and healing processes of many common illnesses. Includes aging and pharmacological and nutritional concepts. Lab skills correlate to the systems studied. Clinical rotations in long term care facilities. Prereq: NUR 171.

**NUR 173 (12) S**  
**LPN III Medical Surgical Nursing II**

Foundations of medical surgical nursing, including pathophysiological principles, the body's attempt to heal and maintain itself, current treatment and promotion of healing. Integrates pharmacological understanding of classes of drugs and the nursing principles of administration and monitoring of medication. Practice in lab and in an acute setting. Prereq: NUR 172.

**NUR 174 (6) S**  
**LPN IV Pediatric & Obstetric Nursing**

Learn skills, and attitudes for providing nursing care in maternal, newborn, pediatric, and infant care settings. Covers psychiatric nursing concepts and principles. Clinical experiences focus on labor, delivery, and pediatric care in inpatient and clinical facilities. Prereq: NUR 173.



**NUR 245 (5) S**  
**Nursing Theory I – Obstetric/  
 Pediatric Nursing**

Plan and implement care related to various complex conditions of obstetric and pediatric populations. Includes LPN vs. RN role, and the nursing process for this client population. Prereq: Admission to program. Coreq: NUR 246, 247 and 249.

**NUR 246 (1) S**  
**Nursing Lab I**

Intro to basic concepts of drug therapy and advanced assessments and nursing skills in the obstetric and pediatric setting. Focuses on safe medication administration and nursing care. Emphasizes the role and responsibilities of the nurse in drug therapy. Prereq: Admission to program. Coreq: NUR 245, 247 and 249.

**NUR 247 (5) S**  
**Nursing Experience I**

Covers supervised obstetric and pediatric nursing care. Develop nursing skills to plan and implement care for clients through the life span. Focuses on promoting normal growth and development and adaptation of children and families to illness. Practice pediatric assessment, planning and care in a supervised pediatric setting. Coreq: NUR 245, 246 and 249.

**NUR 249 (1) S**  
**Health & Wellness**

Intro to theoretical foundations of health promotion and wellness maintenance across lifespan in a variety of health care settings. Coreq: NUR 245, 246, 247.

**NUR 252 (3) S**  
**Nursing Role – Leadership/Management/  
 Ethical & Legal Issues**

Intro to theoretical foundations of leadership in nursing. Emphasizes leadership, change and motivational theories, conflict management, problem-solving, and group dynamics. Addresses time management, delegation, ethical and legal issues. Prereq: NUR 245, 246, 247, 249. Coreq: NUR 255 and 257.

**NUR 255 (4) S**  
**Nursing Theory II – Psychosocial/Medical  
 Surgical Nursing**

Covers psychiatric disorders of clients in acute care and theory and practice of psychosocial assessment and therapeutic interventions for various psychiatric disorders. Work in supervised psychiatric and acute care settings. Focuses on teaching. Prereq: NUR 245, 246, 247, 249. Coreq: NUR 252, 257.

**NUR 257 (5) S**  
**Nursing Experience II**

Covers supervised ambulatory, community-based, acute or long term care practice (medical-surgical). Learn to plan and implement care for clients through the lifespan. Clinical hours focus on the psychosocial assessment and therapeutic interventions in psychiatric disorders in a supervised psychiatric care setting. Prereq: NUR 245, 246, 247, 249. Coreq: NUR 252, 255.

**NUR 265 (5) S**  
**Nursing Theory III – Medical/  
 Surgical Nursing**

Plan and implement advanced care related to various complex illnesses. Prereq: NUR 252, 255, 257. Coreq: NUR 266, 267, and 270.

**NUR 266 (1) S**  
**Nursing Lab II**

Focuses on concepts of drug therapy and develops knowledge essential for safe medication administration of drugs that affect gastrointestinal, ocular, musculoskeletal, urinary and gynecological function and drugs used in the treatment of cancer and anti-infective medications. Covers the role and responsibilities of the nurse in drug therapy. Prereq: NUR 252, 255, 257. Coreq: NUR 265, 267, and 270.

**NUR 267 (3) S**  
**Nursing Experience III**

Provides a choice of clinical observation opportunities in acute care to expand clinical skills. Prereq: NUR 252, 255, 257. Coreq: NUR 265, 266, and 270.

**NUR 270 (3) S**  
**Senior Practicum**

Carry out full-shift nursing care and advance capabilities in a medical-surgical acute care setting. Focuses on continuity of care for clients with complex illnesses. Prereq: NUR 252, 255, 257. Coreq: NUR 265, 266, and 267.

**Nursing - Associate Degree (AAS – T)  
 - North**

**NUR 223 (0.5) N**  
**Advanced Nursing I**

Provides theoretical knowledge and laboratory practice of advanced nursing skills. Prereq: LPN license in Washington state. Coreq: NUR 227, 228 and 235.

**NUR 224 (1.5) N**  
**Health Promotion & Health Care Education  
 in Nursing**

Provides theoretical knowledge related to planning and implementing educational processes in a health care setting. Prereq: LPN license in Washington state. Coreq: NUR 225 and 231.

**NUR 225 (3.5) N**  
**Psychosocial Family Nursing**

Focuses on the theory of psychiatric disorders and family nursing including psychosocial assessment and therapeutic interventions for various psychiatric disorders. Covers wellness and complex health conditions related to family nursing. Prereq: Successful completion of 1st quarter. Coreq: NUR 224 and 231.

**NUR 226 (1.5) N**  
**Care Management & Leadership**

Intro to theoretical foundations of leadership in nursing. Emphasizes leadership, change and motivational theories, conflict management, problem-solving and group dynamics. Includes principles of time management and delegation. Prereq: Successful completion of 1st quarter. Coreq: NUR 233, 234, 237 and 238.

**NUR 227 (4.5) N**  
**Nursing Management of  
 Complex Health Conditions**

In conjunction with NUR 223 and 228, provides the student with the knowledge necessary to plan and implement care related to various complex conditions of illness throughout the life span. Prereq: LPN license in Washington state. Coreq: NUR 223, 228 and 235.

**NUR 228 (3) N**  
**Nursing Management of Complex Health  
 Conditions Clinical Practice**

RN preparation program. Covers supervised ambulatory, community-based, acute or long-term care practice (medical-surgical) which enhances nursing skills in order to plan and implement care for clients through the life span. Prereq: LPN license in Washington state. Coreq: NUR 223, 227 and 235.

**NUR 231 (3) N**  
**Psycho/Social Family Nursing  
 Clinical Practice**

Focus on promoting normal growth, development and adaptation of children and families to illness. Practice assessment, planning and implementing care in a pediatric setting. Practice psychosocial assessment and therapeutic interventions in psychiatric disorders in a supervised psychiatric setting. Prereq: Washington LPN license; successful completion of 1st quarter. Coreq: NUR 221, 224, 225 and 232.

**NUR 233 (0.5) N**  
**Advanced Nursing Skills II**

Provides theory and laboratory practice of advanced nursing skills. Prereq: Washington LPN license. Coreq: NUR 226, 234, 237 and 238.

**NUR 234 (1.5) N**  
**Implementation of Health Promotion &  
 Health Care Education in Nursing**

With NUR 224 provides theory and practical experience in planning health promotion and health education activities. Prereq: Washington LPN license. Coreq: NUR 226, 233, 237 and 238.

**NUR 235 (1.5) N**  
**Legal Aspects/Care Systems**

Understand the role of a Registered Nurse in health care, the community and other health organizations. Explore the history of nursing, current health care, nursing and job market trends. Work with case studies involving legal and ethical nursing issues. Includes Washington State Nurse Practice, licensing, and uniform disciplinary laws and OBRA regulations. Intro to health care systems, funding, organization and function. Prereq: Successful completion of the first 2 quarters with 2.0 or better in all required courses. Coreq: NUR 223, 227 and 228.

**NUR 237 (4) N**  
**Nursing Management of Complex Health  
 Conditions/Family Nursing**

Covers theory needed to plan and implement culturally competent care for diverse populations related to various complex conditions of illness throughout the lifespan. Study how this care may impact treatment modalities. Prereq: Washington LPN license. Coreq: NUR 226, 233, 234 and 238.

**NUR 238 (3) N**  
**Senior Experience/Family Nursing  
 Clinical Practice**

Provides supervised pre-employment clinical experience in a selected area: ambulatory, community-based, acute, critical, long-term (medical-surgical) or family-centered care. Develop further skills in assessment, analysis, planning, implementation and evaluation. Prereq: Washington LPN License. Coreq: NUR 226, 233, 234 and 237.

**LPN-RN Transition - Central**

**NUR 106 (8) C**  
**LPN-RN Transition**

Designed for the LPN to make a successful transition to RN student at the 4th quarter level. Emphasis on applying critical thinking and nursing process to selected physiological and psycho-social alterations. Individualized instruction based on initial diagnostic assessment. Coreq: NUR 120.

**NUR 120 (1) C**  
**LPN-RN Transition:  
 Assessments & Intervention**

Integrates critical thinking in practical caregiving situations. Emphasis on principles used in performing selected nursing skills in various contexts. Coreq: NUR 106.

**Nursing - Associate Degree - Central**

**NUR 101 (5) C**  
**Nursing I: Fundamentals of Nursing**

Intro to core nursing concepts, organized around the individual as a biopsychosocial being, constantly interacting with and adapting to a changing environment. Covers principles of critical thinking, the nursing process, the role of the nurse, cultural views of health and principles of growth and development with emphasis on the aging process. Addresses images and impressions of nursing, current trends in health care delivery and legal/ethical issues in nursing. Coreq: NUR 111, 122 and MATH& 107 or MAT 107.

**NUR 102 (5) C**  
**Nursing II: Medical-Surgical Nursing**

First of 4 medical-surgical theory courses. Develop a comprehensive understanding of homeostasis and the adaptation of clients to the complex processes of the physiologic mode. Emphasis on alterations in fluid and electrolyte balance, acid-base balance, endocrine functions, compromise in wound healing and peripheral vascular circulation. Prereq: Completion of 1st quarter with 2.5 or higher. Coreq: NUR 112, 123 & NTR 150.

**NUR 103 (4) C**  
**Nursing III – Medical-Surgical Nursing**

Second of 4 medical-surgical theory courses. Develop a comprehensive understanding of homeostasis and adaptation with emphasis on alterations in neurologic, musculoskeletal, chronic respiratory and chronic cardiovascular systems. Covers key concepts of adaptation to the complex processes of movement and cognition, oxygenation and circulation. Prereq: Completion of 2nd quarter with 2.5 or higher. Coreq: NUR 113, 185 and PSYC& 200 or PSY 206.

**NUR 111 (3) C**  
**Nursing Practice I**

Apply nursing concepts from NUR 101. Assess four adaptive modes in the clinical setting: physiologic-physical, self-concept-group identity, role function and interdependence. Covers basic assessment and, care planning. Apply principled application of nursing skills in practice lab and clinical setting. Coreq: NUR 101, 122 & MATH& 107 or MATH 107.

**NUR 112 (3) C**  
**Nursing Practice II**

Builds on NUR 111. Apply concepts relevant to adaptation in the basic physiological and psychosocial modes, client response and administration of medications. Assess the four adaptive modes. Gain experience in complete assessment, care planning and principled application of nursing skills in practice lab and clinical setting. Prereq: Completion of 1st quarter with 2.5 or higher. Coreq: NUR 102, 123 and NTR 150.

**NUR 113 (4) C**  
**Nursing Practice III**

Builds on NUR 112. Emphasizes integrating nursing theory, clinical data, skills in providing nursing care and developing priorities. Assess the four adaptive modes, gain experience in individualized assessment and care planning and apply nursing skills in practice lab and clinical setting. Prereq: Successful completion of 2nd quarter. Coreq: NUR 103, 185 & PSYC& 200 or PSY 206.

**NUR 114 (3) C**  
**Nursing Practice**

Builds on the foundation established in NUR 111, 112 and 113.

**NUR 122 (2) C**  
**Psychosocial Nursing I**

First of 2 psychosocial nursing courses. Coordinates with NUR 101. Focuses on communication pertinent to the care of clients in various health care settings throughout the lifespan. Practice therapeutic and professional communication techniques. Assess adaptation in self-concept, role function and independence of clients who are coping with acute and chronic illness. Learn group process. Coreq: NUR 101, 111 and MATH& 107 or MAT 107.

**NUR 123 (4) C**  
**Pharmacology for Nursing**

Intro to basic concepts of drug therapy, including roles and responsibilities of nurses. Focuses on applying critical thinking and the nursing process for safe medication administration. Includes terminology, resources and regulations related to drug therapy and principles of pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Major classifications of drugs include autonomic nervous system agents; parenteral fluids; electrolytes; vitamins and minerals; endocrine, neurologic, respiratory and selected cardiovascular agents; anesthetic, immune system and gastrointestinal agents. Coreq: NUR 102, 112 & NTR 150.

**NUR 185 (2) C**  
**Gerontology for Nurses**

Study adaptations of normal aging, differentiating these adaptations from disease and learn the implications for nursing care. Covers psychosocial, legal and ethical issues common in gerontological nursing practice. Prereq: Completion of 2nd quarter with a 2.5 or higher. Coreq: NUR 103, 113 and PSYC& 200 or PSY 206.

**NUR 190,191,192 (2 EACH) C**  
**ADN Study Group I, II, III**

Enhances the lecture material presented in required core nursing courses each quarter. Focuses on understanding concepts relevant to adaptation in the basic physiological and psychosocial modes. Emphasizes the nursing process as the scientific basis for practice. Coreqs: Enrollment in all concurrent Nursing courses for the quarter specified.

**NUR 201 (2) C**  
**Nursing IVA: Psychosocial Nursing II**

Second of 2 psychosocial nursing courses. Builds on NUR 122 (or NUR 106). Focuses on caring for clients with mental illness using a system with cognator and regulator subsystems to maintain adaptation in the four adaptive modes. Covers psychosocial assessment and therapeutic interventions in psychiatric disorders at three levels: integrated, compensatory and compromised. Prereq: Completion of 3rd quarter or LPN/RN Transition courses with 2.5 or higher. Coreq: NUR 211, 206, 216.

**NUR 206 (3) C**  
**Nursing IVB: Medical-Surgical Nursing**

Third of 4 medical-surgical courses. Builds on NUR 101, 102 & 103. Develop a comprehensive understanding of homeostasis and the adaptation of clients to the complex processes of the physiologic mode. Emphasizes alterations in select integumentary and immune or protective responses and surgical therapies. Prereq: Completion of 3rd quarter or LPN/RN Transition courses with 2.5 or higher. Coreq: NUR 201, 211, 216.

**NUR 207 (4) C**  
**Nursing V: Medical/Surgical Nursing**

Fourth of 4 medical surgical courses. Builds on NUR 101, 102, 103 & 206. Develop a comprehensive understanding of homeostasis and the adaptation of clients to the complex processes of the physiologic mode. Emphasizes acute respiratory, acute cardiovascular, gastrointestinal and renal alterations. Prereq: Completion of 4th quarter with 2.5 or higher. Coreq: NUR 217, 220.

**NUR 208 (6) C**  
**Nursing VI: Developing Family Nursing**

Develop a comprehensive understanding of homeostasis and the adaptation of maternal, newborn and pediatric clients to the complex processes of the physiologic mode. Emphasizes learning and promoting normal family development and understanding adaptive and maladaptive physiologic and psychosocial responses to childbearing, childrearing and illness in childhood. Prereq: Completion of 5th quarter with 2.5 or higher. Coreq: NUR 218, 230.

**NUR 211 (3) C**  
**Nursing Practice IVA**

In a psychiatric setting focus on adaptation in the basic physiological and psychosocial modes and client response. Integrates nursing theory, clinical data and skills in nursing care and developing priorities. Assess the four adaptive modes in clinical setting, gain experience in individualized assessment and care planning and apply therapeutic skills in practice lab and clinical setting. Prereq: Completion of 3rd quarter LPN/RN Transition courses with 2.5 or higher. Coreq: NUR 201, 206, 216.

**NUR 216 (3) C**  
**Nursing Practice IVB**

Focuses on concepts relevant to adaptation in the basic physiological and psychosocial modes and client response. Emphasizes comprehensive care and the relationships of the various components of client data and health care interventions. Assess the four adaptive modes, gain experience in individualized assessment and care planning and apply nursing skills in practice lab and clinical setting. Prereq: Completion of 3rd quarter Nursing or LPN/RN Transition with 2.5 or higher. Coreq: NUR 201, 206, 211.

**NUR 217 (5) C**  
**Nursing Practice V**

Study adaptation in the basic physiological and psychosocial modes and client response. Emphasizes analysis of client data and health care interventions, initiating nursing assessments and interventions, health promotions and education and developing leadership skills. Assess the four adaptive modes, gain experience in individualized assessment and care planning and apply nursing skills in a variety of clinical settings. Prereq: Completion of all 4th quarter with 2.5 or higher. Coreq: NUR 207 & 220.

**NUR 218 (5) C**  
**Nursing Practice VI**

Designed to provide opportunities to apply the concepts discussed in NUR 208. Emphasis on adaptation in the developing family. Focus on application of concepts relevant to adaptation in the basic physiological and psychosocial modes and the manner in which the client responds. The four adaptive modes are assessed in the clinical setting: physiologic-physical, self-concept-group identity, role function, and interdependence. Utilization of the nursing process as the scientific basis for practice is emphasized throughout the course. Experience in individualized assessment, care planning, and principled application of nursing skills is obtained in a variety of clinical settings. Coreqs: NUR 208, 230.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN** . . . . . **Watch Technology**

**NAME TO PREFIX**  
**Watch Technology** . . . . . **HIN**

**NUR 220 (2) C**  
**Health Promotions & Managing Care in Nursing**

Intro to theoretical foundations of health promotion, education and wellness maintenance across the lifespan and to the leadership role in Nursing. Emphasizes planning health promotions and managing care in a variety of settings. Addresses leadership in nursing: traits, styles, problem-solving, change, team communication, conflict management, delegation, time management and the implications of health care trends. Linked to final medical-surgical rotation. Prereq: Completion of 4th quarter with a 2.5 or higher. Coreq: NUR 207 & 217.

**NUR 230 (2) C**  
**Transition to Professional Nursing Role**

Covers the transition from the role of student to Registered Nurse. Focuses on the role of the RN in health care, the community and organizations. Emphasizes professional and legal obligations, obtaining and maintaining licensure, professional organizations, continuing education and job searching. Includes preparation for the NCLEX/RN exam. Prereq: Completion of 5th quarter with a 2.5 or higher. Coreq: NUR 208 & 218.

**NUR 290, 291, 292 (2 EACH) C**  
**ADN Study Group IV, V, VI**

Enhances the lecture material presented in required core nursing courses each quarter. Focuses on understanding concepts relevant to adaptation in the basic physiological and psychosocial modes. Emphasizes the nursing process as the scientific basis for practice. Coreqs: Enrollment in all concurrent Nursing courses for the quarter specified.

**NUR 299 (1-5) C**  
**Independent Study in Nursing**

Independent study in selected nursing topics under faculty supervision. Prereq: Permission.

**NUTRITION**

**NTR 105 (5) N**  
**Intro to Food Science**

Studies biological and chemical consequences of food preparation. Explores questions such as: why cut potatoes turn brown, why starch thickens sauces and why bread rises.

**NTR 150 (5) C,N,S**  
**Human Nutrition**

Intro to nutrition, emphasizing relationship of nutrition to growth, development, health, physical and mental functioning. Examination of sources, functions, interrelationships and human requirements of nutrients.

**NTR 155 (5) C,N**  
**Advanced Human Nutrition**

Covers contemporary topics in nutrition. Emphasis on origins of the American diet, nutrition's role in disease and behavior and the safety of the food supply. Prereq: NTR 150.

**NTR 160 (5) N**  
**American Food Ways**

Explores the evolution of the North American diet and eating rituals. Looks at the foods available in U.S. supermarkets which reflect the contributions of American native populations and immigrants from Europe, Asia, Africa, South America and the Pacific Islands.

**OCEANOGRAPHY**

**OCE 100 (5) C,N,S**  
**Survey of Oceanography**

Survey of the ocean in terms of physical, chemical, geological and biological processes and the human influence upon the ocean's natural equilibrium processes.

**OCE 298 (1-5) C**  
**Special Topics: Oceanography**

Selected topics or activities in oceanography. Prereq: Permission.

**OCE 299 (1-5) C**  
**Independent Study**

Study of selected topics in oceanography. Prereq: OCE 100 and permission.

**OFFICE ASSISTANT**

*See Business Computers programs at SVI, page 166.*

**OPTICIANRY, SCHOOL OF**

**OPH 100 (2) C**  
**Orientation to Ophthalmic Dispensing**

Intro to optical mechanics, ophthalmic dispensing and optics and products. Overview of the optical business and the job of the ophthalmic dispenser. Prereq: Eligibility for ENGL& 101, MATH 110 and permission.

**OPH 101 (5) C**  
**Optical Theory I**

Focuses on ophthalmic lens optics and eyeglass fabrication process. Intro to practical application of ophthalmic lens equations. Includes study of powers of spectacle lenses including ophthalmic prisms and aberrations.

**OPH 102 (4) C**  
**Optical Theory II**

Continuation of OPH 101. Introduces reflection and refraction principles. Emphasis on light theories, propagation, ray tracing, plane surfaces and prisms.

**OPH 103 (3) C**  
**Optical Theory III**

Covers multi-focal lenses: origin, development, types and applications. Includes study of presbyopia and other conditions requiring correction and introduces presbyopic prescription analysis.

**OPH 105 (3) C**  
**Ocular Anatomy & Physiology**

Covers anatomy and physiology of the human eye, including relation of ocular anatomical structures to the visual process. Emphasis on ocular terminology.



**OPH 106 (5) C**  
**Contact Lens Technology I**

Covers basic principles of contact lenses: history, manufacturing methods, terminology, optics, equipment for fitting and evaluation of contact lens candidates. Lab demonstration on use of radius gauge, ophthalmometer, thickness and diameter gauges, shadow graph and biomicroscope.

**OPH 107 (5) C**  
**Ophthalmic Dispensing I**

Intro to responsibilities of the ophthalmic dispenser, including facial measurements, cosmetic considerations, frame fitting and selection based on prescription. Includes practical projects, role-playing and demonstrations.

**OPH 108 (5) C**  
**Ophthalmic Dispensing II**

Covers ophthalmic dispensing procedures relating to complex prescriptions: fitting, adjusting and ordering procedures with emphasis on multi-focal and absorptive lenses. Includes low-vision aids. Refines communication skills.

**OPH 110 (3) C**  
**Optical Lab Technology I**

Covers lens surface grinding, ophthalmic laboratory procedures, laboratory safety procedures, lens planing and design as related to eyeglass fabrication and basic optical terminology. Prereq: Eligibility for ENGL& 101 and MATH 110.

**OPH 111 (3) C**  
**Optical Lab Technology II**

Continuation of OPH 110. Intro to lab machinery, including applications, maintenance and repair, operation of focimeter, application of optical instruments and tools. Covers ophthalmic lens inspection process.

**OPH 112 (3) C**  
**Optical Lab Technology III**

Continuation of OPH 111, with emphasis on lens edging process. Covers manual skills, processing flow of the finishing laboratory, lens standards and insertion of hand-edged projects into plastic and metal frames.

**OPH 113 (5) C**  
**Finishing I**

Covers finishing work with emphasis on procedures and machinery for automatic edging. Studies American National Standards Institute guidelines. Intro to lens toughening procedures and stress testing.

**OPH 197, 198, 199 (2-5) C**  
**Work Experience – Opticianry**

Earn work experience credit in the field of opticianry. Prereq: Permission.

**OPH 203 (5) C**  
**Contact Lens Technology II**

Covers basic fitting techniques of hard and soft lenses. Includes patient instruction and contact lens adjustments. Examines bifocal, scleral and specialty lenses.

**OPH 204 (6) C**  
**Contact Lens Technology III**

Continuation of OPH 203. Emphasis on available lenses, solutions and accessories; diagnostic and fitting skills; development of biomicroscopy and keratometry skills.

**OPH 205 (2) C**  
**Contact Lens Technology IV**

Continuation of OPH 204. Emphasis on ocular surfaces in interaction with foreign objects, ocular pharmacology and the refractive examination.

**OPH 211 (5) C**  
**Finishing II**

Continuation of finishing laboratory skills, with emphasis on efficient production flow. Includes layout of multi-focal lenses and study of plastic lenses and tinting.

**OPH 212 (5) C**  
**Finishing III**

Continuation of OPH 211. Emphasis on efficiency, speed and accuracy. Includes finishing procedures for special lenses, frames and mountings.

**OPH 215 (3) C**  
**Benchwork Procedures**

Independent work on projects to develop production skills and workmanship. Lab time is scheduled, but students choose project completion date.

**OPH 295, 296, 297 (3 EA) C**  
**Ophthalmic Dispensing Business I, II & III**

Acquire real-world opticianry experience through practice in a retail optical store on campus under direct supervision of a Washington state-licensed optician. All business functions, including sales and management, are administered by student teams, over three academic quarters. Fully develop salesmanship, business plans and implementation. Prereq: Completion of first-year requirements.

**OPH 298 (1) C**  
**Opticianry Workshops**

Incorporate advanced ophthalmic skills with new technology, critical thinking and problem-solving. Provides the opportunity to pursue professional areas of interest.

**OPH 299 (7) C**  
**Comprehensive**

Typical workshops include advanced ophthalmic skills incorporating new technology, critical thinking and problem-solving. Pursue professional areas of interest.

**PARENT EDUCATION**

**Parent-Child Study Laboratory**

*Students with children birth through 6 years of age enroll in classes according to the age of their child. The students attend the laboratory class one day a week with their child and one evening class each month.*

*Course content focuses on child development, positive guidance, health and safety, living in a diverse society, family issues and other parenting concerns depending on the age of the student's child.*

<b>FAM 040, 041, 042</b>	<b>(2.5)</b>	<b>C</b>
<b>FAM 047, 048, 049</b>	<b>(3)</b>	<b>S</b>
<b>FAM 050, 051, 052</b>	<b>(2.5)</b>	<b>C</b>
<b>FAM 053, 054, 055</b>	<b>(3)</b>	<b>S</b>
<b>FAM 060, 061, 062</b>	<b>(2.5)</b>	<b>C</b>
<b>FAM 063, 064, 065</b>	<b>(3)</b>	<b>S</b>
<b>FAM 070, 071, 072</b>	<b>(2.5)</b>	<b>C</b>
<b>FAM 073, 074, 075, 079</b>	<b>(3)</b>	<b>S</b>
<b>FAM 080, 081, 082</b>	<b>(2.5)</b>	<b>C</b>
<b>FAM 083, 084, 085</b>		<b>S</b>
<b>FAM 090, 091, 092</b>	<b>(2.5)</b>	<b>C</b>
<b>FAM 093, 094, 095</b>		<b>S</b>
<b>FAM 146, 147, 148</b>	<b>(1-3)</b>	<b>N</b>
<b>FAM 149</b>	<b>(1-3)</b>	<b>N</b>
<b>FAM 156, 157, 158</b>	<b>(1-3)</b>	<b>N</b>
<b>FAM 166, 167, 168</b>	<b>(1-3)</b>	<b>N</b>
<b>FAM 176, 177, 178</b>	<b>(1-3)</b>	<b>N</b>
<b>FAM 186, 187, 189</b>	<b>(1-3)</b>	<b>N</b>
<b>FAM 196, 197, 198</b>	<b>(1-3)</b>	<b>N</b>

**FAM 180 (1-5) N**  
**Special Topics for Parents of Young Children**  
 Online Distance Learning. Covers topics for parents and those who work with children on the care and teaching of young children.

**FAM 181 (2-6) N**  
**STAR Parenting**  
 Online class. The STAR process (Stop, Think, Act, Review) encourages those who work with children to investigate children's temperament and development and to focus on long-range goals. Use the child's current behavior to teach skills/values the adult wants. Guide by avoiding problems, responding to cooperation, acknowledging feelings, setting limits and teaching new skills. May be repeated for credit.

**FAM 182 (1-5) N**  
**FAM 183 (1-5) N**  
**Special Topics**  
 Special topics for childcare providers focusing on working with parents, special needs children, multi-cultural curriculum, dealing with stress and burnout and management and personnel issues.

**FAM 190 (1-5) C,N**  
**Foster Parent Training**

## PASTRY

*See Hospitality/Food Production/  
Culinary Arts, page 219.*

## PHARMACY TECHNICIAN

**AHI 100 (3) N**  
**Intro to Medical Vocabulary**  
 General survey of medical terminology introducing health service workers to the basic rules and fundamentals in medical vocabulary-building.

**PHA 112 (2) N**  
**Pharmacy Law**  
 Intro to federal and state laws regulating pharmacy practice. Emphasis on Washington state pharmacy law regulating pharmacy technicians.

**PHA 115 (2) N**  
**Orientation to Pharmacy Practice**  
 Intro to pharmacy technician as a career. Includes history, pharmacy information resources and drug distribution control. Visit job to observe typical job tasks.

**PHA 120 (3) N**  
**Pharmacy Calculations**  
 Covers mathematics review and an intro to calculations encountered in pharmacy practice.

**PHA 130 (2) N**  
**OTC Drugs**  
 Overview and uses of drugs available without prescriptions (over-the-counter drugs).

**PHA 140 (2) N**  
**Sterile Products & Aseptic Technique I**  
 Covers aseptic technique in preparing sterile solutions and pharmaceuticals. Learn laminar flow hood usage, preparation of intravenous fluids and hyperalimentation fluids. Practice filling unit dose carts and preparing IV fluid labels using hospital-based software.

**PHA 141 (2) N**  
**Sterile Products & Aseptic Technique II**  
 Continuation of PHA 140. Focus on the preparation of cardiac and other iterable drips, IV antibiotics, chemotherapy, IVPs and TPNs. Intro to hospital application software. Includes lab.

**PHA 145 (1) N**  
**Pharmacy Ethics**  
 Focuses on commonly encountered ethical dilemmas from pharmacy practice. Intro to ethical decision-making models and problem-solving solutions.

**PHA 150 (3) N**  
**Pharmacology I**  
 Covers drugs, their classification, action and uses.

**PHA 151 (3) N**  
**Pharmacology II**  
 Continuation of PHA 150.

**PHA 155 (1-3) N**  
**Special Topics**  
 Covers a variety of communication and leadership activities, including staff relationships, preparing a resume and interviewing. Prereq: Permission.

**PHA 160 (3) N**  
**Pharmacy Technology I**  
 Covers many uses of computers in pharmacy practice. Gain proficiency using two different pharmacy prescription-filling software programs. Fill real prescriptions in pharmacy lab.

**PHA 161 (2) N**  
**Pharmacy Technology II**  
 Continuation of PHA 160. Intro to the top 200 drugs. Use pharmacy software to process real prescriptions in the pharmacy lab. Study computerized insurance billing and report generation. Intro to hospital and nursing home application software.

**PHA 170 (4) N**  
**Pharmacy Records Management**  
 General overview of skills required to work in a retail pharmacy (ambulatory care). Introduces the skills to interpret prescriptions, such as Latin abbreviations, the top 200 drugs and apothecary symbols. Covers inventory control, third party insurance billing and pharmacy record-keeping.

**PHA 190 (3-13) N**  
**Pharmacy Technician Externship**  
 Gain pharmacy technician experience in participating agencies, classroom guidance in assimilating experience and classroom assistance with problems. (13 credits generally provided over two-quarters, 5 + 8 credits).

**PHA 281 (2) N**  
**Pharmacy Self-Care Products & Practices**  
 Addresses a broad range of health concerns, including how to identify common conditions amenable to self-care; how to select appropriate treatment options ranging from non-prescription to non-drug therapies; how to prevent adverse effects from the use of medications; and strategies to encourage healthier lifestyle habits. Also addresses the rationale behind conventional and alternative/complementary therapies.

## PHLEBOTOMY

*See Phlebotomy Program at SVI.*

*See Medical Assisting Program at North.*

## PHILOSOPHY

**PHIL& 101 (5) C,N,S**  
**Intro to Philosophy**  
 (Formerly PHI 100) Intro to philosophical thought and issues, intellectual systems and writings of the great philosophers. Covers the nature of philosophy, the meaning of knowledge, values, reality and related subjects.

**PHIL 102 (5) C,N**  
**Contemporary Moral Problems**

Covers philosophical consideration of some of the major moral problems of modern society and civilization, such as discrimination, abortion, euthanasia, animal rights, world hunger and homelessness. Examines the issue of what means are justified in trying to bring about social change.

**PHIL& 106 (5) C,N,S**  
**Intro to Logic**

(Formerly PHI 120) Examines the principles of Aristotelian and symbolic logic, deductive argument and proof. Covers the meaning of language and its place in the reasoning process. Includes the application of logic to other fields. Fulfills QSR requirement for A.A. degree.

**PHIL 110 (5) C,N,S**  
**Intro to Social Ethics**

Includes philosophical analysis of current or perennial issues in public affairs, such as the nature and scope of freedom in society, the justification of democratic government and the nature of social justice.

**PHIL 111 (5) N**  
**Intro to Bioethics**

Examines ethical questions surrounding clinical medical practice, ethical issues in biomedical research and more general ethical questions concerning the maintenance and improvement of the health and well-being of communities at local and global levels. Focuses on newly emerging infectious diseases (AIDS, drug-resistant tuberculosis) and on environmentally-induced diseases, such as asthma, cancers, chemical sensitivity and reproductive disorders.

**PHIL 118 (5) C,N,S**  
**Practical Reasoning & Decision-Making**

Emphasizes a non-symbolic approach to logic and critical thinking. Emphasis on analyzing and evaluating real life examples of reasoning.

**PHIL 160 (5) C**  
**Historical Intro to the Philosophy of Science**

Covers the historical development of selected concepts from science and the philosophy of science.

**PHIL 215 (5) C,N**  
**Intro to Ethics**

Deals with questions: "What am I to do" and "why"; "What am I to be"; and "How can I be what I choose to be" Examines ethical principles of Aristotle, Mill, Aquinas, Kant, existentialism and situation ethics. Includes current problems in medical ethics. Explores ideas of duty, justice, responsibility, virtue and human excellence.

**PHIL 240 (5) C**  
**Liberation Ethics**

Examines the morality of liberation, through general theoretical and conceptual analysis, with the focus of inquiry on conceptions of liberty, oppression and justice. Also examines personal identity and individual community/social interaction; social/cultural groups within the United States and North America; and social/cultural groups outside of North America and Western Europe.

**PHIL 245 (5) C**  
**Conceptualizing Race/Confronting Racism**

Focuses on questions and topics of race. What is race? Do/should races exist? What is the nature of racism? What is the relationship between racism and other forms of oppression? Is there only one primary system of oppression? What, if any, is the nature of the relationship between believing that races exist and being a racist? Can we/should we eradicate racism? Is celebrating the distinctive features of racial identity racist or anti-racist? Prereq: Eligibility for ENGL& 101 or ENG 101.

**PHIL 250 (5) C**  
**Feminist Philosophical Perspectives**

Focuses on questions such as the nature of sexism and feminism; "sisterhood" as an empowering, unifying truth or an oppressive, difference-stifling myth; the relationship between sexism and other forms of oppression; and between sex and gender. Is celebrating feminism a uniquely female way of knowing or is it being morally judgmental, sexist or feminist? Prereq: Eligibility for ENGL& 101 or ENG 101.

**PHIL 255 (5) C**  
**Marxist Philosophy Examined**

Examines Marxist philosophy: What is the nature of capitalism? What is exploitation? What are some Marxist criticisms of capitalism? Does Marxism clarify or distort the phenomenon of racism? What reasons, if any, are there why lesbians, gays, or bisexuals should support Marxism? Is Marxism Eurocentric? Can a person consistently support both Marxism and feminism? Must a Marxist be opposed to religion? What is political freedom? Prereq: Eligibility for ENGL& 101 or ENG 101.

**PHIL 267 (5) C,N,S**  
**Philosophy of Religion**

Explores major issues of religion, including the nature of religious experience, the idea of the holy, God and gods, the problem of evil, the quest for transcendence, the question of authentic and unauthentic religious forms, religious relativism, mysticism and the contemplative life.

**PHIL 298 (1-5) C,N,S**  
**Special Topics in Philosophy**

Independent study in selected philosophical topics under faculty supervision. Prereq: Permission.

**PHIL 299 (3-5) C,N,S**  
**Special Problems in Philosophy**

Examines great philosophical questions and philosophers by instructor and student agreement.

**PHOTOGRAPHY –  
COMMERCIAL PHOTOGRAPHY****PHO 111 (4) C**  
**Camera Techniques I**

Learn the functions and operation of large format 4x5 view camera, 210 mm lens, tripod, exposure meter and related equipment. Study camera controls: swings, tilts, slide, rise and fall, angle coverage, image circle of the lenses, apertures and shutter speeds. Covers light meter functions and techniques of determining exposures. Prereq: 1st quarter standing.

**PHO 112 (3) C**  
**Camera Techniques II**

Continue learning the use and operation of the large format 4x5 view camera. Develop additional skills in view camera control, adjustments and lenses with emphasis on perspective and distortion control. Emphasis on commercial photography studio assignments. Learn to assist a photographer through teamwork. Prereq: 2nd quarter standing.

**PHO 113 (3) C**  
**Studio Techniques I**

Intro to color photography, color theory and color transparency films in large, medium and small formats. Use strobe lighting systems in a studio environment. Develop skills in the use of color transparency material, color correction filters and studio lighting systems. Learn professional presentation skills. Work as assistants to the graduating students. Prereq: PHO 112

**PHO 121 (4) C**  
**Lighting Techniques I**

Covers basic concepts of commercial lighting: laws, principles and practices of light; qualities of direct/indirect sunlight and tungsten light sources; and lighting for form, texture and separation using basic 3-dimensional forms. Includes light modifiers and the safe use of tungsten lighting equipment. Prereq: 1st quarter standing.

**PHO 122 (4) C**  
**Lighting Techniques II**

Study advanced tungsten lighting techniques and light controls. Covers sensitive lighting techniques such as the relationship between the light sources and subject positioning in classic portraiture. Prereq: 2nd quarter standing.

**PHO 123 (3) C**  
**Location Stock Techniques**

Intro to shooting on location. Learn basic techniques, equipment and logistical planning required to successfully shoot on location. Build sets on location and solve problems on site. Prereq: PHO 122.

**PHO 131 (3) C**  
**Darkroom Techniques I**

Intro to darkroom procedures and equipment, including safe use of processing facilities, chemicals, developers, stop baths and fixers. Learn various films, film and paper speed, film development, print processing, contact printing, enlarging, working with variable contrast photographic papers, print finishing, dry mounting and presentation techniques. Experiment with alternative photographic methods and basic darkroom manipulation. Prereq: 1st quarter standing.

**PHO 132 (3) C**  
**Darkroom Techniques II**

Explore advanced means of contrast control including the Zone System. Study film processing techniques for multiple film formats. Develop advanced skills in black and white photography, film testing and evaluation. Prereq: 2nd quarter standing.

**PHO 133 (3) C**  
**Retail Photography**

Intro to business practices and photographic techniques required for successful consumer photography. Examine photo-imaging business practices, marketing and merchandising, client location, purchaser and end-user of the various photographic products and/or services available. Study large format camera operation and traditional film processing techniques. Prereq: 3rd quarter standing.

**PHO 141 (3) C**  
**Professional Lab Survey**

Intro to professional photography as an aesthetic/technical career with an overview of the history of photography including its various personalities, trends and styles. Explore employment options, creative teams, working relationships, entry-level issues, time management and basic organizational methods. Prereq: 1st quarter standing.

**PHO 142 (3) C**  
**Conceptual Development**

Intro to visual conceptualization skills in commercial photography. Covers the elements and principles of 2-dimensional design and the techniques and processes that support creativity and aesthetic development. Experience the critique process. Begin to develop personal creativity and individual photographic style.

**PHO 143 (3) C**  
**Photojournalism**

Intro to the basic elements of professional picture reporting with emphasis on organizing an event for concise visual communications. Learn newspaper and magazine publishing fields. Use small format cameras and learn to move freely among subjects, establishing a rapport in order to capture the critical moment. Produce a series of related images that tell a picture story. Prereq: PHO 133.

**PHO 197 (2-5) C**  
**Work Experience: Photography**

Earn work experience credit in the photography field. Prereq: Permission.

**PHO 214 (3) C**  
**Catalog Production**

Continue to explore techniques using color materials with various camera formats. Create quality images for a 4-page catalog layout. Explore photographic options while developing a personal photographic style. In a studio environment produce an individual mini-catalog, using traditional and digital photographic techniques. Prereq: 2nd quarter standing.

**PHO 215 (3) C**  
**Advertising Production**

Intro to the whole advertising production cycle, including project-oriented commercial output and current business practices. Covers the research, preplanning, problem-solving, business practices and technical execution of commercial advertising photography. Practice as professional assistants in group work.

**PHO 224 (3) C**  
**Corporate Communications**

Learn the location techniques to successfully shoot for the corporate communications markets. Create an annual report, a brochure and public relations imagery which require location problem-solving and shooting. Build on the digital imaging and digital layout skills of PHO 214 and 244. Prereq: PHO 123.

**PHO 225 (3) C**  
**Digital Capture**

Intro to the technical requirements of digital capture. Develop skills required to digitally capture images. Learn to operate small-, medium- and large-format digital cameras and study various lighting techniques.



**PHO 234 (3) C**  
**Professional Business Practices I**

Intro to basic commercial studio management, market research and analysis, business forms and computer applications that focus on American Society of Media Photographers professional business practices. Includes the functions, tasks and skills required for certification by the Professional Photographers of America, Inc. Prereq: PHO 133.

**PHO 235 (3) C**  
**Professional Business Practices II**

Covers advanced business marketing and planning techniques based upon the Professional Photographers of America certification criteria, the National Skills Standards Board guidelines and the professional business practices in photography of the American Society of Media photographers. Prereq: PHO 234.

**PHO 244 (3) C**  
**Digital Imaging**

Intro to the creative and technical requirements of digital imaging. Combine traditional and non-traditional electronic image-capture with the hardware and software used in digital imaging. Cover digital imaging techniques for photographic retouching, enhancement and image composition including color pre-press requirements. Using the latest desktop tools, learn how professional photographers enhance, color correct and create special effects. Prereq: PHO 143.

**PHO 245 (3) C**  
**New Media**

Broaden understanding of image editing techniques and processes including advanced retouching, layering, masking and types of color adjustment as they apply to basic web design. Create and publish a basic website using image editing and design software. Prereq: PHO 244.

**PHO 254 (3) C**  
**Portfolio I**

Intro to the processes and portfolio forms used to create a professional-level portfolio for use as a marketing and job search tool. Covers the basic methods of presenting material to prospective employers and clients. Includes creation of business cards, stationery and self-promotion cards. Prereq: PHO 133.

**PHO 255 (3) C**  
**Portfolio II**

Continuation of PHO 254. Produce five portfolio-quality images. Design and produce computer-generated portfolio support documents such as business cards, stationery, promotion handout materials and self-promotion mailers. Prereq: PHO 254.

**PHO 256 (3) C**  
**Portfolio III**

Complete individual photographic portfolios through individually directed or class assignments. Prereq: PHO 255.

**PHO 266 (3) C**  
**New Media Workshop**

Instructor-supervised lab sessions provide the opportunity to complete website project from PHO 245. Work on photographic portfolio or show booth through individual or class assignments. Prereq: PHO 245

**PHO 276 (3) C**  
**Portfolio Workshop**

Instructor-supervised lab sessions provide the opportunity to prepare for the annual Portfolio Show. Design individual show booths and form committees to plan for the show. Work on photographic portfolio or booth through individual or class assignments. Prereq: PHO 255.

**PHO 286 (3) C**  
**Special Projects**

Supports major production assignments given in the final quarter. Work on pre-production follow-up for these shoots. Also supports experimental projects of particular interest to individual portfolio direction. Prereq: PHO 215.

**PHYSICAL EDUCATION**

*NOTE: All physical education courses are co-ed.*

**PEC 104 (2) C,N**  
**Beginning Martial Arts**

Learn the practical self-defense techniques and philosophies of Goju Ryu Karate-do including fundamentals of stances, blocks, strikes, kicks, movement and offensive and defensive strategies.

**PEC 105 (2) C,N**  
**Intermediate Martial Arts**

For individuals at all skill levels. Adjust to the type of self-discipline and interaction required in the Goju Ryu Karate. Prereq: PEC 104, or formal rank up to and including green belt.

**PEC 106 (2) C,N**  
**Advanced Martial Arts**

For all skill levels. Foster self-improvement and appreciation of Karate as an art, sport, physical conditioning and self-defense tool. Prereq: Intermediate skills, successful completion of PEC 105 or formal rank of brown belt or higher.

**PEC 110 (2) N**  
**Aerobics**

Improve cardiorespiratory fitness through rhythmic, dynamic, large-muscle exercise performed to music. Workouts consist of warm-up, workout, cool-down, strengthening and flexibility. Current fitness-related issues, trends and topics included.

**PEC 113 (2) C,N**  
**Badminton**

Intro to basic skills of badminton: clears, serves and drives. Covers rules of play and basic singles and doubles strategies. Opportunity for gameplay and tournament play.

**PEC 114 (2) N**  
**Beginning Tennis**

Intro to the rules, history, techniques, skills and strategies of tennis. Reinforce and apply learning through gameplay and competition.

**PEC 115 (2) C,N**  
**Beginning Volleyball**

Learn basic volleyball skills: forearm and overhead passing, serving and spiking. Includes basic offensive and defensive strategies for 6-on-6 team play. Opportunities for modified gameplay and tournament play.

**PEC 118 (2) N**  
**Intermediate Tennis**

Provides the opportunity to practice the proper techniques and strategies associated with tennis and focus on advanced technical skills.

**PEC 129 (2) N**  
**Intermediate Volleyball**

Covers intermediate level attacking, passing and serving techniques and multiple offensive systems and defensive patterning practice. Assumes basic volleyball skills. Prereq: PEC 115 or permission.

**PEC 130 (2) C,N**  
**Beginning Basketball**

Covers basic individual skills of dribbling, passing and shooting, team skills and strategies. Includes in-class drills, modified gameplay, structured scrimmage and tournament play.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**PEC 131 (2) C,N**  
**Beginning Weight Training**

Using a variety of resistance equipment, includes both individualized and instructor-driven programs: super-set, pyramid and circuit training. Includes safety, nutrition, supplementation, muscle anatomy and physiology, steroids and other ergogenic aids.

**PEC 132 (2) N**  
**Intermediate Weight Training**

Continuation of PEC 131. Includes both individualized and instructor-driven intermediate programs. Prereq: Prior experience and a working knowledge of weight training (N).

**PEC 133 (2) S**  
**Soccer**

Intro to basics, including offense and defense, current strategies, techniques, rules and trends. Practice basic skills in game situations. Emphasizes practical, skill-based training, technique and equipment.

**PEC 136 (2) C,N**  
**Yoga**

Covers postures or asanas, breathing, meditation exercises for physical and mental fitness. Presents yoga as a philosophy and an art form, introducing a number of poses with their purposes.

**PEC 137 (2) S**  
**Yoga II**

Builds on PEC 136 with stronger asana/postures and further discussion of Yoga principles and philosophy. Prereq: PEC 136 or permission.

**PEC 143 (2) C,N**  
**Walking for Fitness**

Develops cardiorespiratory fitness through progressive workouts including warm-ups, walking sessions and cool-downs. Covers safety, walking technique and issues and trends related to walking and physical fitness.

**PEC 145 (2) N**  
**Jogging**

Develop cardiorespiratory fitness through progressive workouts including warm-ups, walking sessions and cool-downs. Covers safety, jogging technique and issues and trends in jogging and physical fitness.

**PEC 150 (1-3) N,S**  
**Physical Fitness**

Instruction in developing, executing and maintaining individualized fitness programs. Emphasis on cardiorespiratory fitness, muscular strength and endurance and flexibility. Includes fitness, nutrition and wellness.

**PEC 151 (1-3) N**  
**Intermediate Physical Fitness**

Instruction in manipulating existing individualized fitness programs to meet personal goals, emphasizing health-related fitness. Includes fitness, nutrition and wellness.

**PEC 155 (3) N**  
**First Aid & Personal Safety**

American Red Cross First Aid Basics and Community CPR certification (adult, child, infant). Provides instruction in advanced rescue skills including two-person CPR, pocket mask, bag-valve-mask and automated external defibrillation (advanced certification available).

**PEC 160 (2) C,N**  
**Step Aerobics**

Development of cardiorespiratory and musculoskeletal fitness by incorporating choreographed, rhythmical movements performed on a bench or step. Discussions include current fitness-related issues and trends.

**PEC 165 (2) C,N**  
**Body Conditioning**

Improve muscular strength, muscular endurance and flexibility of the upper body, abdominals, back and lower body by using lightweight resistance equipment. Workouts consist of resistance exercise performed to music, stretching and fitness-related discussions.

**PEC 170 (2) N**  
**Intro to Jazz Dance**

Covers fundamentals of dance technique while improving strength, flexibility and anaerobic capacity. Builds postural awareness and develops motor skills through jazz style, which borrows from ballet and contemporary street dance. Includes safety, injury prevention, spinal health and nutrition.

**PEC 175 (2) N**  
**Ballet Basics**

Covers fundamentals of ballet style. Stresses proper technique and body mechanics to avoid dance-related injury. Emphasis on flexibility and strength, focusing on basic movements (plie, tendu, developpe and battement), joint stability and range of motion. Includes "kinesthetic memory," basic nutrition, rest and the application of ballet to other dance and movement styles.

**PEC 298 (1-5) N,S**  
**Special Topics**

Seminar on selected topics and/or activities in physical education. Prereq: Variable, depends on topic.

**PEC 299 (1-5) N**  
**Independent Study**

Independent study of approved topics in physical education. Prereq: Permission.

**PHYSICS**

**PHYS& 100 (5) C,N,S**  
**Physics for Non-Science Majors**

(Formerly PHY 100 – Survey of Physics) Basic laws of physics, such as motion, sound, gravitation, energy, heat and temperature, electricity and magnetism, light, relativity, quantum theory, and nuclear physics. For non-majors. Non-lab course.

**PHYS 107 (5) C,N,S**  
**Intro to Physics**

For non-majors. Study basic laws of physics through inquiry and learn to use the scientific method to predict, test, analyze and extend experiments demonstrating key concepts of physics. Perform and author experiments and effectively document observations, experimental designs and analyses.

**PHYS 111 (5) S**  
**Technical Physics I**

Includes force, linear and angular motion; work, energy, and power; rotation, torque, and power transmission; friction and the analysis of basic machines; structure of materials and the properties of solids. Prereq: MATH 111.

**PHYS 112 (5) S**  
**Technical Physics II**

Explores properties of solids, liquids, and gases; temperature and the effects of heat; specific heat, heat transfer, basic thermodynamics, heat engines; wave motion; illumination; refractions, resonance and interference. Prereq: Basic algebra and PHY 111.

**PHYS 113 (5) S**  
**Technical Physics III**

Covers electrostatics, direct current circuits, magnetism, electromagnetic induction, alternating current, capacitance, inductance, resonance, vacuum tubes and transistors. Prereq: Basic algebra and PHY 112.

**PHYS 118 (5) N**  
**Technical Physics for Electronics**

Intro to the physics of electricity and magnetism. Includes study of energy, work, harmonic motion and waves, electrostatics, magnetism, electrodynamics and electromagnetic waves. Prereq: MATH 106 and SCI 101.

**PHYS& 121 (5) C,N,S**  
**General Physics I**

(Formerly PHY 101) First of three non-calculus-based courses covering the field of physics. Includes kinematics, vectors, forces, dynamics, work, energy, momentum, torque and gravitation. Lab included. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 (with 2.2 or higher) (C); MATH 099.

**PHYS& 122 (5) C,N,S**  
**General Physics II**

(Formerly PHY 102) Continuation of PHYS& 121. Covers heat, gas laws, electricity, magnetism and electrical circuits. Lab included. Fulfills QSR requirement for A.A. degree. Prereq: PHYS& 121 or PHY 101 or permission.

**PHYS& 123 (5) C,N,S**  
**General Physics III**

(Formerly PHY 103) Continuation of PHYS& 122. Covers electromagnetic waves, optics, atomic and nuclear physics. Lab included. Fulfills QSR requirement for A.A. degree. Prereq: PHYS& 121 or PHY 101 (N); PHYS& 122 or PHY 102 or permission (C,S).

**PHYS 198 (5) N**  
**Physics Workshop**

A problem-solving workshop approach to physics topics considered appropriate by the instructor and/or physics faculty. Prereq: Permission.

**PHYS& 221 (5) C,N,S**  
**Engineering Physics I**

(Formerly PHY 201) Calculus-based study of kinematics, dynamics, energy, and momentum in linear and rotational coordinates and Newton's Laws of Motion. Lab included. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 151 or MAT 124 with 2.2 or higher (C); with 2.0 or higher (N,S) and one year of high school physics.

**PHYS& 222 (5) C,N,S**  
**Engineering Physics II**

(Formerly PHY 202) Covers Maxwell's classical laws of electricity and magnetism which developed from the study of the Laws of Coulomb, Ampere, Gauss and Faraday. Lab included. Fulfills QSR requirement for A.A. degree. Prereq: PHYS& 221 or PHY 201 and MATH& 152 or MAT 125.

**PHYS& 223 (5) C,N,S**  
**Engineering Physics III**

(Formerly PHY 203) Intro to waves and oscillations and the study of sound, geometric and physical optics. Covers the dualistic particle-wave nature of microscopic phenomena as an intro to modern physics. Lab included. Fulfills QSR requirement for A.A. degree. Prereq: PHYS& 221 or PHY 201 (N); PHYS& 222 or PHY 202 (C,S).

**PHYS 298 (1-5) C,N,S**  
**Special Topics**

Independent work in physics laboratory and/or library. Prereq: Permission.

**PHYS 299 (1-5) C,N,S**  
**Independent Study - Physics**

Independent study of physics problems or topics. Prereq: Permission.

**POLITICAL SCIENCE**

**POLS& 101 (5) C,N,S**  
**Intro to Political Science**

(Formerly POL 101) Intro to theory, organization, politics and administration of government. Includes political theory, comparative systems, political socialization, public administration, political parties and elections and international relations. Foundation course for political science studies.

**POLS 111 (5) C,N**  
**The American Presidency**

Explores the evolution of the American presidency. Includes the presidents' personalities, character, leadership and public relations. Examines presidential campaigns and the roles of the president as Chief Diplomat, Chief Executive, Chief of State, Commander-In-Chief and Chief Bureaucrat.

**POLS 112 (5) C,N**  
**The Contemporary World**

Intro to the nation-state system, elements of power and major problems facing nation-states today including population, hunger, nuclear proliferation, energy, nationalism and North-South/East-West relations. May be taken for international studies credit as ISP 112.

**POLS 170 (5) C**  
**Minority Politics in America**

Focuses on socio-political developments leading to current status of minorities in America. Covers critical review of proposed solutions to minority tensions.

**POLS& 200 (5) C**  
**Intro to Law**

(Formerly BUS 200 - Intro to Law) Fundamental concepts, structure, and function of the American legal system. Emphasis on the role of law in society rather than on the rules of law. Includes sources of law, court systems, dispute resolution, constitutional law, torts, criminal law, contracts and legal reasoning.

**POLS& 202 (5) C,N,S**  
**American Government**

(Formerly POL 102) Survey of the origin and development of the U.S. government. Covers Colonial history, the Confederacy and the creation of a federal system, the functions of Congress, the presidency and courts. Includes interest groups, civil liberties, political parties and elections.

**POLS& 203 (5) C,N,S**  
**International Relations**

(Formerly POL 230) Intro to international and regional governmental organizations. Examines major issues in the international arena including nationalism, rise of the Third World, imperialism, the arms race, environmentalism and foreign policy. Emphasis on issues which foster or frustrate world peace and prosperity.

**POLS 205 (5) C**  
**Political Economy**

Study of basic economic terms and concepts, by surveying various nations and regions politically and economically. Study how nations and regions economically compete with one another. Includes study of human and non-human resources, the international monetary system, government business activity, development and international law.

**POLS 206 (5) C**  
**Bill of Rights**

(Formerly POL 204) Survey of the origin and development of judicial review and concepts of civil rights and civil liberties. Covers due process, free speech, religion and equal protection. Includes background on current U.S. court and legislation decisions.

**POLS 213 (5) N**  
**Women & Politics**

Intro to concepts of power and policy issues as they relate to women. Covers theoretical, historical and empirical studies of women's participation in social and political movements nationally and internationally. Studies women's diverse roles in relation to family, economics, labor, government and law.

**POLS 217 (3-7) N**  
**Internship in Politics**

Intern as a participant-observer in a political campaign, political party or special interest group. Increase political sophistication by exposure to decision-making experiences. Prereq: Permission.

**POLS 220 (5) N**  
**Comparative Political Systems**

Covers democratic and authoritarian governments. Includes political and economic systems of wealthier nations of the West and less-developed Third World Nations. Examines Great Britain, France, Japan, Russia, China, India, Nigeria, Mexico and Iran.

**POLS 255 (5) C,S**  
**Government & Politics of the Middle East**

Problems of traditional society versus construction of a modern state. Emphasis on Arab-Israeli relations and impact on international affairs.

**POLS 298 (1-5) C,N**  
**Independent Study in Political Science**

Independent research and writing on selected political science topics under faculty supervision. Prereq: Permission.

**POLS 299 (1-5) C,N,S**  
**Special Problems in Political Science**

Seminar requiring study and written reports on political science topics. Prereq: Permission.

**PSYCHOLOGY****PSYC& 100 (5) C,N,S**  
**General Psychology**

(Formerly PSY 110) Intro to the scientific study of human behavior, including learning and thinking, development, perception, motivation, emotion, personality and individual differences, social and abnormal behavior, and research methods.

**PSYC 120 (5) C**  
**Psychology of Adjustment**

Covers the study of personality within the framework of the social system and the application of proven psychological principles to problems of adjustment and conflict as faced in day-to day living.

**PSYC 160 (5) N**  
**Psycho-Physical Development – The Life Span**

Survey of human physical, psychological and social development from infancy through death. Emphasis on major developmental theories, research and methods of studying life-span development.

**PSYC& 200 (5) C,N,S**  
**Lifespan Psychology**

(Formerly PSY 206 – Developmental Psychology) Survey of human physical, psychological, and social development from conception through death. Emphasis on major developmental theories, research and research methods of studying life-span development. Prereq: PSYC& 100 or PSY 110 or permission.

**PSYC 207 (5) C,N,S**  
**Developmental Psychology**

(Formerly PSY 206) Analysis of psychological development of the child in relation to biological, physical and sociological antecedent conditions from conception through adolescence. Prereq: PSYC& 100 or PSY 110 or permission.

**PSYC 209 (5) N**  
**Fundamentals of Psychological Research**

Examines the scientific method, hypothesis testing and designs of qualitative and quantitative research. Covers the search and evaluation of research literature in psychology, descriptive statistical analysis, fundamentals of scientific writing, ethical issues and cross-cultural considerations in psychological research. Includes a research project. Pre-req: PSYC& 100 or PSY 110 or equivalent.

**PSYC 210 (5) C,N,S**  
**Personality & Individual Differences**

Intro to the study of personality and individual differences, including theory, measurement and research. Application of psychological principles to problems of everyday living.

**PSYC 217 (5) C**  
**Intro to Probability & Statistics for Psychology**

Covers descriptive statistics, probability theory, probabilistic variables and experimental outcomes, distributions, experiments, sampling, hypothesis testing, normal distribution, T-tests and correlation. Fulfills QSR requirement for A.A. degree. Prereq: Intermediate algebra.

**PSYC& 220 (5) C,N,S**  
**Abnormal Psychology**

(Formerly PSY 215) Intro to theories of psychopathology and behavioral changes associated with abnormal behavior. Emphasizes ethical issues of diagnosis and treatment and major diagnostic categories such as schizophrenia, depression and anxiety disorders, and disorders of childhood and old age.

**PSYC 222 (5) N**  
**Survey of Physiological Psychology**

Covers workings of the nervous system. Explores the brain's capacity in language, hunger and thirst, learning and memory, emotions, sexual behavior, depression, schizophrenia and repair after injury. Recommended: PSYC& 100 or PSY 110 or a biological science course.

**PSYC 230 (5) C,N,S**  
**Human Sexuality**

Survey of current literature on development of sexual behavior. Includes historical, physiological, psychological and social components of sexuality and its deviations. May be taken as SOC 230.



**PSYC 235 (5) C**  
**Contemporary Problems in Psychology**

(Formerly PSY 200) Major socio-psychological contemporary problems leading to maladaptive behavior and its roots in social disintegration, drug addiction, alcoholism and divorce. Examines violence, sexual harassment and molestation of women and children. Prereq: PSYC& 100 or PSY 110 or permission.

**PSYC 240 (3) C,S**  
**Psychology of Human Relations**

(Formerly PSY 220) Covers dynamics of organizations and human resources in the workplace: motivational theory, leadership, group processes, organizational theory, participatory management, conflict management and counseling. Primarily for vocational students. Prereq: Satisfactory performance on placement test (S).

**PSYC 245 (5) C,N,S**  
**Social Psychology**

Examines the effect of others on self-concept, social cognition, aggression, conformity, helping, loving and liking, competition and cooperation and prejudice and discrimination. Research and autobiography from two of the following groups provides content and illustration: African Americans, Asian Americans, Native Americans and Hispanic Americans. May be taken as SOC 245.

**PSY 250 (5) C**  
**Psychology of African Americans**

Provides an in-depth look at contemporary psychological research and issues involving African Americans. Includes Black personality, institutional racism and the educational system, counseling African Americans and methods of dealing with racism in daily life.

**PSYC 255 (5) N**  
**Cognitive Psychology**

Overview of the field of cognitive psychology. Addresses current theory and research in the areas of attention, perception, learning, memory, decision-making, language, problem-solving and creativity in both clinical and real world contexts. Prereq: PSYC& 100 or PSY 110; ENGL& 101 or ENG 101; or permission.

**PSYC 257 (5) N**  
**Psychology of Gender**

Explores major psychological theories of sex differences. Examines studies of sex-role development and biological and environmental influences that may determine and maintain sex differences in aggression, cognitive abilities, achievement, motivation, affiliation and sexuality. May be taken as WMN 257.

**PSYC 294 (1-5) C,N**  
**Practicum in Psychology**

Practicum in the application of basic psychology principles. Specific seminar and practicum areas and evaluation criteria established by an educational contract. Prereq: PSYC& 100 or PSY 110 and permission.

**PSYC 298 (1-5) C,N,S**  
**Individual Study in Psychology**

Independent study in selected psychology topics under faculty supervision. Prereq: Permission.

**PSYC 299 (1-5) C,N,S**  
**Special Problems in Psychology**

Small group seminar for study and discussion of selected psychology topics. Prereq: Permission.

**PUBLISHING ARTS**

*Current enrollment in the Publishing Arts program required.*

**PUB 101 (3) C**  
**History of Publishing**

Covers a history of the major printing processes plus graphic design, typesetting, photography and basic reproduction principles of the industry. Study traditional image preparation, film, other historical prepress materials and equipment and the advent of the computer, operating systems and desktop applications. Explore career options and employment skills.

**PUB 110 (5) C**  
**Intro to Graphic Publishing**

Intro to digital prepress, imaging and finishing processes. Learn concepts of color (CMYK, RGB, spot colors) by mixing printing inks, using loupes and densitometers. Study resolution, RIP and imaging devices and "follow the path of the dot." Learn maintenance, calibration and safety of production equipment.

**PUB 111 (3) C**  
**Intro to Digital Input**

Focuses on basic terminology (PPI, DPI, SPI), scanning and digital camera operation. Use the most current software to evaluate originals, make adjustments during scanning and manipulate. Learn object-oriented (vector) graphics and bitmapped (pixel-based) images through illustration and layout applications.

**PUB 112 (3) C**  
**Intro to Digital Output**

Learn preflight software, fonts and font management. Create files with the most current layout applications. Learn to generate output-ready files, output files to various devices and understand their purpose in the digital workflow.

**PUB 120 (3) C**  
**Graphic Production**

Experience "real world" production by reviewing tickets, creating preflight files and assessing needs. 2nd-year students write up production projects, manage and mentor as students "fix" provided files, keep an open communication and produce jobs from imposition to proof to final output. Learn PDF workflow.

**PUB 121 (3) C**  
**Digital Workflow**

Study both design and production aspects of the most current software layout applications, with emphasis on final output. Learn imposition and trapping of digital files. Create and output multi-color files. Gain experience with resolution, layout applications, proofing and overall digital workflow.

**PUB 122 (3) C**  
**Intro to Imaging**

Learn operation, maintenance, cleaning and safety of small offset presses, concepts of a press sheet (gripper, guide, work and turn), printing inks, press chemistry, plate types and paper, using 1 and 2 colors. Study basic principles of offset lithography: dot gain, densitometry, ink/water balance and ink traps.

**PUB 123 (3) C**  
**Intro to Finishing**

Intro to basic paper handling and terminology, calculating paper cuts and safe operation of bindery equipment (cutting, simple folding, drilling, stitching and mechanical binding). Intro to imaging companies and careers through visits and guest speakers.

**PUB 130 (3) C**  
**Graphic Production II**

Work with 2nd-year students to create live product, including press-related production: prepress, proofing/plating, imaging and finishing. Also work independently with production projects and PDF workflow.

**PUB 131 (3) C**  
**Digital Workflow II**

Work with state-of-the-art applications on multi-page documents, working with style sheets, templates and libraries. Focus on font usage, utilities and file storage organization; delve further into resolution and output, links, fonts and packing files for output. Proof files to a variety of devices before final output.

**PUB 132 (3) C**  
**Imaging II**

Work with 2-color, 2-sided printing projects using accurate positioning and registration. Emphasis on safe operation and equipment maintenance. Study printing screen tints and halftones, working with different paper stocks, practicing press work styles and ink mixing using Pantone Matching System (PMS).

**PUB 133 (3) C**  
**Finishing II**

Builds on PUB 123. Includes more complex mechanical binding, folding and programming and practicing paper cuts. Learn about specialized bindery/finishing techniques: scoring, perforating, die cutting, embossing, foil stamping and book binding. Explore letterpress printing. Emphasis on safety and effective communications, including record-keeping and interpreting instructions. Includes guest speakers and field trips.

**PUB 197 (2-5) C**  
**Work Experience: Publishing Arts**

Cooperative Education offers on-the-job learning for college credit. Gain practical experience and explore publishing arts occupations. Credits based on hours worked per week in conjunction with assessment by an on-the-job supervisor. Minimum 2 credits work experience required during 2nd year. Prereq: Program faculty or Co-op office approval.

**PUB 210 (4) C**  
**Intro to Project Management**

Explore "real world" job workflows and develop customer service skills. Compare estimates to actual job files, write-up job tickets and follow jobs through typical print production processes. Use software to preflight customer files, modify job parameters and produce actual jobs. Learn to manage projects, vendors, clients and production personnel.

**PUB 211 (4) C**  
**Advanced Digital Workflow**

Review graphics applications and learn advanced aspects of digital workflow, including scanning, image manipulation, imposition and trapping. Intro to more complex documents, including multi-color, multi-side and signature work.

**PUB 212 (4) C**  
**Production Imaging & Finishing**

Study advanced multi-color imaging and finishing, including various work styles and signatures. Learn the ramifications of presswork on bindery functions (scoring, perfling, folding). Emphasis on mechanical, chemical and electrical safety.

**PUB 214 (2) C**  
**Advanced Digital Processes**

Learn networking and client/server-based applications, including those that simplify getting files from point A to B (file compression, FTP, email, Internet). Create PDF files for proof and for print. Includes online applications for digital asset management and proofing.

**PUB 215 (2), C**  
**Intro to Estimating & Engineering**

Learn the basics of planning print production projects: job cost estimating, planning and scheduling production equipment. Use paper specification books, equipment manuals, the latest software and consult with industry professionals. Begin to engineer jobs, specify paper, schedule printing and bindery equipment.

**PUB 220 (4) C**  
**Advanced Graphic Production**

Focus on leadership of production personnel and project management. Handle production requirements in groups. Complete simple job estimates, job tickets and billing requests. Contact clients directly for specs and proofing. Mentor 1st-year students on preflight, imposition, file manipulation, output, imaging, finishing and delivery.

**PUB 221 (4) C**  
**Advanced Digital Workflow II**

Builds on PUB 211. Focus on advanced use of graphics applications for all aspects of digital workflow, including scanning, image manipulation, imposition and trapping. Emphasis on more complex documents, including multi-color, multi-side, process color and signature work.

**PUB 222 (4) C**  
**Production Imaging & Finishing II**

Produce process-color imaging and finishing projects. Learn accurate color using densitometry and spectrodensitometry along with proper ink traps and gray balance. Apply advanced and specialized finishing processes (die cutting, foil stamping, embossing). May include letterpress. Field trips examine challenging imaging and binding work.

**PUB 224 (2) C**  
**Advanced Digital Processes II**

Covers more advanced digital workflow and highly technical prepress issues. Build hot folders, learn about UCR/GCR, tone reproduction curves and how to set up network volumes. Emphasis on color management principles.

**PUB 225 (2) C**  
**Project Management**

Builds on PUB 215. Learn the "real job costs," relationships with vendors and scheduling jobs using both a manual job board and software.

**PUB 230 (4) C**  
**Advanced Graphic Production II**

Builds on PUB 220 with more complex projects. Work directly with production manager in creating estimates and engineering layouts for actual campus jobs. Manage jobs with both a manual job board and software. Work directly with clients for file, costs and scheduling.

**PUB 232 (4) C**  
**Production Practicum**

Produce a variety of advanced projects, including work in prepress, imaging, finishing and specialized processes (foil, emboss, digital letterpress, screen). Focus on mastering skills and working efficiently. May work on projects of students from Graphic Design or other related programs.

**PUB 234 (2) C**  
**Advanced Digital Processes III**

Covers the most recent trends in the graphics industry. Explore emerging technologies through field trips, guest presenters and media. Gather recent products from local industry and identify the processes used. Explore unfamiliar procedures.

**PUB 235 (2) C**  
**Portfolio**

Plan the year-end portfolio show, including choosing the venue, preparing marketing materials and coordinating all event activities cooperatively with 2nd year Graphic Design students. Finalize projects and select the best for display.

**PUB 236 (2) C**  
**Career Builder**

Prepare for successful entry into the workforce. Prepare for job seeking by building comprehensive, flexible resumes and cover letters. Develop and practice interview skills in class and mock interviews with industry representatives.

**RADIOLOGIC TECHNOLOGY**

*NOTE: This program is offered through an agreement between North Seattle Community College and Bellingham Technical College. Call the Allied Health Division for more information.*

**RT 101 (1-3) N**  
**Radiographic Positioning & Anatomy I**

Intro to the basic positioning techniques in the radiography of the respiratory system, upper and lower extremities. Lab sections include peer positioning, film critique, anatomical identification and an energized and non-energized section using phantoms.

**RT 102 (3) N**  
**Radiographic Positioning & Anatomy II**

Intro to the basic positioning techniques in the radiography of the lower extremities, abdomen, pelvis, ribs and spine. Lab sections include peer positioning, film critique, anatomical identification and an energized and non-energized section using phantoms. Prereq: Bellingham Technical College – Permission only.

**RT 103 (1-3) N**  
**Radiographic Positioning & Anatomy III**

Intro to basic positioning techniques in the radiography of the respiratory system, abdomen and upper extremities. Labs include peer positioning, film critique, anatomical identification and an energized section using phantoms. Prereq: 2.0 GPA and permission.

**RT 110 (4) N**  
**Intro to Radiographic Technology**

Overview of foundations in radiography and the technologist's role and professional responsibilities in the health care delivery system. Covers principles, practices and policies of the health care organization. Examines a variety of clinical ethical issues and dilemmas, including ethical behavior, legal terminology, conduct and principles. Prereq: 2.0 GPA and permission.

**RT 112 (1-2) N**  
**Patient Care In Radiology**

Covers basic concepts of patient care, including physical and psychological needs of the patient and family. Includes routine care, infection control techniques, vital signs, safety and transfer positioning, medical emergencies, barium studies, oxygen therapy, catheters, patient education and documentation.

**RT 114 (1) N**  
**Leadership in Imaging**

Learn leadership principles and improve communication and presentation skills. Study selected leaders to see leadership characteristics and the impact individuals can have on professional and global populations. Prereq: 2.0 GPA and permission.

**RT 120 (2) N**  
**Imaging & Processing**

Study factors that govern and influence the production and recording of radiologic images, emphasizing filming and electronic imaging with related accessories. Includes basic radiographic production, imaging standards, radiographic density and contrast, recorded detail, distortion, exposure latitude, beam-limiting devices, beam filtration, technique formulation, exposure calculations, image receptors and processing. Lab uses energized and non-energized equipment and test tools. Prereq: Bellingham Technical College - Permission only.

**RT 121 (1-3) N**  
**Radiographic Physics I**

Learn atomic structure and terminology, including the nature and characteristics of radiation, x-ray production and the basics of photon interactions with matter. Intro to the principles of radiation protection. Lab. Prereq: 2.0 and permission.

**RT 122 (1-2) N**  
**Quality Assurance**

Intro to basic concepts of quality management in imaging including developing, implementing and managing a quality assurance program within an Imaging Department. Covers quality control and improvement for the darkroom, film processing, radiographic and digital imaging equipment. Conduct image outcome assessments, solve commonly seen quality control issues affecting images and outcomes.

**RT 131 (6) N**  
**Radiographic Clinic I**

Perform two clinical assignments of eight-hour work shifts per week in a radiology department to complete first quarter clinical competencies correlating with academic coursework. Prereq: Bellingham Technical College – Permission only.

**RT 132 (6) N**  
**Radiographic Clinic II**

Complete two radiology department clinical assignments of 8-hours work plus a 4-hour class each week. Develop clinical competencies correlating to class work including image review and critique via ITV and online assignments.

**RT 133 (1-10) N**  
**Radiographic Clinic III**

Complete clinical competencies through three clinical assignments per week, two 8-hour shifts and one 4-hour shift in a radiology department correlating with academic coursework. Prereq: 2.0 GPA and permission.

**RT 210 (3) N**  
**Radiation Protection & Biology**

Overview of the principles of the interaction of radiation with living systems; factors affecting biological response, including acute and chronic effects of radiation; and standards, measurements and requirements set by government guidelines.

**RT 232 (1-12) N**  
**Radiographic Clinic V**

Three clinical assignments of 8-hour shifts per week in a radiology department to complete fifth quarter clinical competencies.

**RT 233 (1-12) N**  
**Radiographic Clinic VI**

Five clinical assignments of 6-hour shifts per week in a radiology department to complete clinical competencies and select specialized rotations.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN** . . . . . **Watch Technology**

**NAME TO PREFIX**  
**Watch Technology** . . . . . **HIN**

**REAL ESTATE**

*All real estate courses meet Department of Licensing (DOL) requirements for renewal and educational clock hours of real estate and/or appraisal licenses.*

**RES 100 (5) N**  
**Real Estate Fundamentals**

Revised pre-license course. Preparation for the Washington State Real Estate Salesperson License exam. Intro to sales and listing practices, financing, appraising, title, escrow and property management. Approved for Department of Licensing Sales/Broker Licensing Test. (60 DOL clock hours).

**RES 101 (5) N**  
**Technology for Real Estate**

Designed to "power up" real estate professionals with the use of technology. Learn MS Word, Excel, Outlook, Publisher and the Internet to create marketing materials, letters, and spreadsheets; to manage time and contacts; and to use email and Internet resources specific to the Real Estate industry. Prereq: Some experience using computers highly recommended. (50 DOL clock hours).

**RES 106 (1) N**  
**Real Estate Fraud**

Learn the extent of real estate fraud in sales, finance and appraisals. Study fraud cases, the local and national extent of the problem and the impact on the marketplace. Learn to avoid potential fraudulent acts. Recommended: RES 100 or concurrent enrollment. (10 DOL clock hours).

**RES 110 (3) N**  
**Intro to Commercial Real Estate**

Learn to list, sell and lease commercial real estate investment properties. Use finance as a tool to increase profits. Learn to establish market value and return for investments in office buildings, industrial properties, apartments, shopping centers and retail stores. (30 DOL clock hours).

**RES 120 (1.5) N**  
**Real Estate Principles of Maintenance & Repair**

Study maintenance and repair for residential and commercial properties. Learn to recognize maintenance problems and schedule preventative maintenance and repairs. Explore HVAC, roofing, landscaping and janitorial services. Analyze maintenance and service contracts. (15 DOL clock hours).

**RES 125 (2) N**  
**Applications of Real Estate Math**

Develop skills in basic real estate mathematics using the HP12C programmable calculator. Apply a variety of principles for real estate transactions, valuation, finance and other investment analysis. Bring to first class a HP12C or borrow one from RES program if available. Recommend: RES 100 concurrent enrollment. (20 DOL clock hours).

**RES 130 (3) N**  
**Green Real Estate**

Gain cutting-edge information about developing, building and marketing "Green Real Estate." Learn about environmental sustainability, water and energy efficiency/utilization, architecture and design process, materials for new construction and remodeling, sustainable site selection and acquisition, demographics and psychographics of green-minded consumers. Become a Built Green Certified Professional upon successful completion. (30 DOL clock hours).

**RES 140 (3) N**  
**Real Estate Sales Practice**

Washington state-required course addresses the sales process: obtaining and servicing listings, prospecting, qualifying the buyer, showing real property, negotiating and servicing the sale. Includes time organization and goal-setting. Prereq: RES 100 or 110 or 210, or concurrent enrollment or a real estate license. (30 DOL clock hours).

**RES 141 (3) N**  
**Land Use Principles & Practice**

Introduces federal and state laws and regulations governing land use and environmental issues. Includes in-depth study of local (King County) regulations. Provides practical land use knowledge including the permit process. (30 DOL clock hours).

**RES 143 (3) N**  
**Intro to Home Inspections**

Intro to home inspections: professional practices, communications and standards including pre-inspection and inspection routines and American Society of Home Inspectors (ASHI) Standards of Practice. (30 DOL clock hours).

**RES 144 (4) N**  
**Inspecting Structural Framing & Plumbing Systems**

Learn to inspect foundations, wall, floor, ceiling and roof framing, public and private water systems, water heaters, drain piping, fixtures and faucets. Meets Domain 2. Structural Components: Tasks 1.1-1.4 and Domain 4. Plumbing: Tasks 4.1-4.5 of ASHI Home Inspector Training. Prereq: RES 143 or concurrent enrollment or permission. (40 DOL clock hours).

**RES 145 (4) N**  
**Inspecting Exteriors & Roofing**

Gain practical knowledge in the proper inspection of the entire exterior including roofs, skylights, siding, porches, decks, balconies, eaves, soffits, fascia, walkways, driveways, vegetation, grading, surface drainage, retaining walls, garages, carports and various types of roofs and flashings. Meets Domain 2. Exteriors: Tasks 2.1-2.5 and Domain 3. Roofing: Tasks 3.1-3.3 of ASHI Home Inspector Training. Prereq: RES 143 or concurrent enrollment or permission. (40 DOL clock hours).

**RES 146 (2) N**  
**Inspecting Heating Systems I**

Gain hands-on skills for inspecting heating systems and identifying the energy source, type, material, condition, safety concerns and other issues related to gas and oil-fired forced-air furnaces and hot water heating plants as well as their distribution systems. Meets Domain 5. Heating: Tasks 5.1-5.3 of ASHI Home Inspector Training. (20 DOL clock hours).



**RES 147 (2) N**  
**Inspecting Heating Systems II**

Learn to inspect masonry and metal chimneys and exhaust vents; wood-burning furnaces and boilers; wood stoves; fireplaces; steam heating systems; electrical heating systems; wall and floor furnaces; room heaters and gas appliances. Identify type, material, condition, safety concerns and other issues related to these systems, their distribution and exhaust systems. Meets Domain 5. Heating: Tasks 5.1-5.3 and Domain 10. Fireplaces and Solid Fuel Burning Appliances: Tasks 10.1-10.2 of ASHI Home Inspector Training. Prereq: RES 143 or concurrent enrollment or permission. (20 DOL clock hours).

**RES 148 (3) N**  
**Inspecting Electrical Systems**

Study service boxes and their components, grounding and bonding, distribution panels, branch circuit wiring, outlets, switches and junction boxes. Learn to inspect electrical systems. Prereq: RES 143 or concurrent enrollment or permission. (30 DOL clock hours).

**RES 149 (4) N**  
**Inspecting Heat Pumps, A/C, Interiors, Insulation & Ventilation Systems**

Learn to inspect various types of heat pumps and air conditioning. Study inspection procedures for interiors: insulation, walls, floors, ceilings, crawl space, attics, exhaust fans and windows. Identify foundation defects, basement leakage and methods of correction. Prereq: RES 143 or concurrent enrollment or permission. (40 DOL clock hours).

**RES 150 (1.5) N**  
**Residential Sales & Leasing Documentation**

Covers Washington real estate broker and agent practices emphasizing agency law, contracts, torts and Multiple Listing forms. Prereq: RES 100, 110, 170 or 210 or concurrent enrollment, or 6 months experience in the real estate industry. (15 DOL clock hours).

**RES 160 (1) N**  
**Ethics for Loan Originators**

Understand issues related to ethical mortgage loan practices. Includes reviewing specific WAC regulations regarding prohibited practices, disclosure requirements and advertising. Learn to identify and prevent loan fraud and predatory lending. (10 DOL clock hours).

**RES 165 (3) N**  
**Real Estate Loan Originator**

Examines the loan process, typical mortgage loan products and loan merchandising skills. Includes relevant laws and regulations and business development techniques. Coreq: RES 100 recommended. (30 DOL clock hours).

**RES 166 (4) N**  
**Real Estate Loan Processing**

Covers fundamentals of processing residential mortgages for Conventional/Conforming, Subprime, Jumbo, FHA and VA mortgages from loan application to closing. Includes use of CALYX Point Loan Processing software producing loan application, good faith estimates, truth-in-lending and other required documents. Analyze credit reports, verifications of employment and assets and related finance documents. Prereq: RES 100 or concurrent enrollment. (40 DOL clock hours).

**RES 168 (1.5) N**  
**Loan Origination Automation**

Hands-on training for originating residential loan applications using Interling's MortgageWare software. Prereq: RES 165 or RES 166 or concurrent enrollment or real estate experience. (15 DOL clock hours).

**RES 170 (3) N**  
**Real Estate Law**

Principles of law governing real estate including acquisition, encumbrance, transfer, rights and obligations of parties and Washington state regulations thereof. Prereq: RES 100 or 110 or 130, or RES 210 or concurrent enrollment or real estate-related experience. (30 DOL clock hours).

**RES 175 (3) N**  
**Intro to Title**

Covers real estate sales, finance, escrow and title insurance fields. Foundation in title insurance, various types of liens and other items of record and off-record that affect real property. Covers methods of clearing title. (30 DOL clock hours).

**RES 176 (1.5) N**  
**Using Tax-Deferred Exchanges to Your Advantage**

Understand Section 1031 Exchanges of the Internal Revenue Code pertaining to business and investment real property. Acquire useful knowledge for tax-deferred exchanges and advanced tax planning strategies. (15 DOL clock hours).

**RES 177 (1.5) N**  
**Using Tax-Deferred Exchanges to Your Advantage**

Covers U.S. income taxes pertaining to real estate. Learn what constantly changing federal income tax laws affect residential, business, and investment properties. (Fulfills 15 DOL continuing education clock hours).

**RES 180 (3) N**  
**Basic Appraisal Principles**

Intro to the appraisal process. Investigate the influences on types of real estate values. Overview of real estate markets and analysis. Meets Jan. 1, 2008 Real Property Appraisal Qualification Criteria. Coreq: RES 100 recommended. (30 DOL clock hours).

**RES 181 (1.5) N**  
**Standards of Professional Practice in Appraisal**

Focuses on requirements for ethical behavior and competent performance set forth in the Uniform Standards of Professional Appraisal Practice and Washington State Regulations. Prereq: RES 180 or appraisal experience. (15 DOL clock hours).

**RES 183 (3) N**  
**Basic Appraisal Procedures**

Presents methods used in valuation procedures. Understand property descriptions for appraisal reporting and apply to residential and commercial appraisals. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 180, or appraisal experience or permission. (30 DOL clock hours).

**RES 184 (1.5) N**  
**Residential Market Analysis & Highest & Best Use**

Research residential markets by using supply and demand analysis. Learn and apply highest and best use analysis through case studies. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 180 or real estate or appraisal experience or permission. (30 DOL clock hours).

**RES 185 (1.5) N**  
**Residential Appraiser Site Valuation & Cost Approach**

Learn advanced methods for site valuation and the cost approach in determining value of real property. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 180 or real estate or appraisal experience or permission. (15 DOL clock hours).

**RES 186 (3) N**  
**Residential Sales Comparison & Income Approaches**

Learn to estimate value using cost and sales comparison approaches. Learn to compute Capitalization Rates, Gross Rent Multipliers, finance and cash equivalency on the HP12C financial calculator. Bring your HP12C or borrow one from RES program if available. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 125 and RES 183 or real estate or appraisal experience or permission. (30 DOL clock hours).

**RES 187 (1.5) N**  
**Residential Report Writing & Case Studies**

Gain writing and reasoning skills to complete the standard residential appraisal report. Overcome common report writing problems and learn options. Meets January 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 186 or concurrent enrollment or appraisal experience or permission. (15 DOL clock hours).

**RES 188 (1.5) N**  
**Statistics, Modeling & Finance**

Study elementary statistical concepts and their application to real estate issues. Cover measures of central tendency, linear and non-linear trend analysis, linear regressions, complex multivariate automated valuation models (AVMs) and their application to mass appraisal and real estate finance. Uses HP12C calculator and Microsoft XL. Meets January 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 125, RES 186 or concurrent enrollment or appraisal experience or permission. (15 DOL clock hours).

**RES 189 (1.5) N**  
**Advanced Residential Applications & Case Studies**

Discover the property and design elements, market conditions and other factors that create complexities in residential real estate and how these impact valuation. Measure supply and demand factors and their impact. Case studies include market analysis and feasibility determinations. Meets January 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 187 and RES 188 or concurrent enrollment or appraisal experience. (15 DOL clock hours).

**RES 190 (3) N**  
**Real Estate Escrow I**

Basics of escrow principles and procedures covering laws, real estate and escrow documents, escrow closings and title exceptions. Prereq: RES 100, 105 or 130 or concurrent enrollment, or real estate experience. (30 DOL clock hours).

**RES 191 (2) N**  
**Advanced Escrow Closing System**

Covers computerized escrow closing: information entry, trust accounting, producing documents, letters and closing statements through the use of Advanced Escrow Closing software. Prereq: RES 190 or concurrent enrollment or six months escrow closing experience. (20 DOL clock hours).

**RES 195 (3) N**  
**Real Estate Escrow II**

Includes extensive work in real estate contracts, assumptions, mortgages (FHA, VA and conventional) and wraparounds. Prereq: RES 190 or 6 months recent experience in escrow. (30 DOL clock hours).

**RES 200 (5) N**  
**Seminar in Current Real Estate Issues**

Covers the latest information and laws on appraisal, sales, land development, title, finance, and current issues. Assists with career development through discussions with professionals and work-related research projects. (50 DOL clock hours).

**RES 201 (3) N**  
**Principles of Real Estate Management**

Covers basic principles of commercial and residential property management including property analysis, management and planning, marketing, staffing and maintenance of real estate. (30 DOL clock hours).

**RES 202 (3) N**  
**Multi-family Property Management**

Learn important functions in residential property management, property analysis, rental policies, rental surveys, lease provisions, inspection, building codes, tenant relations, operating policies and financial result analysis. (30 DOL clock hours).

**RES 203 (3) N**  
**Commercial Property Management**

Covers commercial property management, including personnel policies, marketing, tenant management, property maintenance, security, collection, lease provisions and record-keeping systems. (30 DOL clock hours).

**RES 210 (3) N**  
**Residential Property Investments**

Learn to invest in different types of residential properties. Study principles and techniques used to determine the advantages and disadvantages of buying, selling and renting investments and the available financing options. Recommend: RES 100 concurrent enrollment. (30 DOL clock hours).

**RES 215 (3) N**  
**Business Opportunities: Purchase & Sale**

Explore the specialized field of buying and selling business opportunities. Cover all aspects from prospecting for buyers and sellers to closing the transaction and estimating value. (30 DOL clock hours).

**RES 217 (3) N**  
**Real Estate Development & Sustainability**

Explore fundamental principles and procedures involved in developing residential, commercial and industrial real estate including sustainability and all the stages of a development project. (30 DOL clock hours)

**RES 220 (3) N**  
**Real Estate Economics**

Analyze impact of national, regional, community and neighborhood trends in real estate. Study trends in the money market, community growth patterns, land use controls, taxation in the Puget Sound Region. Prereq: RES 100 or 110 or RES 180 or real estate experience or a real estate license. (30 DOL clock hours).

**RES 225 (1.5) N**  
**Current Trends in Real Estate Market Analysis**

Presents current economic, political and real estate information affecting the Puget Sound Region. Provides practical methodology to distill information into useful market report. Learn techniques to understand, modify and create forecasts and scenarios. Prereq: RES 110 or RES 210 or RES 220 or concurrent enrollment. (15 DOL clock hours).

**RES 230 (5) N**  
**Professional Business Practices of Brokerage Management**

Obtain practical knowledge of real estate brokerage operations: general business concepts, management practices and responsibility of a broker. Satisfies 30 hours of Brokerage Management and 30 hours of Business Management for Washington state. Prereq: RES 100 or 130 or real estate sales license. (60 DOL clock hours).

**RES 235 (3) N**  
**Sales & Marketing**

Increase business and/or market share by incorporating sales and marketing techniques, including an action plan. Learn to differentiate yourself/business from your competition and generate effective marketing media strategy. Recommend RES 100 or RES 110 or RES 180 or concurrent enrollment. (30 DOL clock hours).

**RES 241 (3) N**  
**Appraising Small Residential Income Properties**

Provides a foundation in the principles, concepts and methods applicable to appraising 2-4-unit small residential income properties. (Prereq: RES 180 and RES 125 or concurrent enrollment. (30 DOL clock hours).

**RES 260 (2) N**  
**Real Estate Finance – Commercial**

Review sources and methods for financing commercial and investment properties including alternative financing and the secondary market. Prereq: RES 100 or 110 and RES 125 or taken concurrently or real estate experience or permission.(15 DOL clock hours).

**RES 266 (3) N**  
**Real Estate Loan Underwriter**

Intro to underwriting residential loans. Includes underwriting documents, analyzing appraisals, applications, verifications and formulas for buyer qualification. Prereq: RES 165 or 166, or concurrent enrollment or real estate experience. (30 DOL clock hours).

**RES 280 (3) N**  
**Commercial Real Estate: Analyzing Markets & Income**

Learn research and analysis techniques in the appraisal of income property including property characteristics, sources of data, analysis of supply and demand and forecast of performance. Uses case studies in the multi-family, retail and lodging markets. Prereq: RES 125 and RES 183 ( concurrent enrollment) or real estate experience. (30 DOL clock hours).

**RES 281 (1.5) N**  
**National USPAP Course**

Focus on requirements for ethical behavior and competent performance set forth in the Uniform Standards of Professional Appraisal Practice and Washington State Regulations. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 183 or six months appraisal experience or permission. (15 DOL clock hours).

**RES 282 (3) N**  
**General Appraisal Applications**

Increase ability to apply appraisal methods, techniques and procedures using case studies. Prereq: RES 125 and RES 281, or appraisal experience or approval; HP12C or similar financial calculator. (30 DOL clock hours).

**RES 290 (3) N**  
**Commercial Sales & Leasing**

Study the opportunities and responsibilities of representing commercial property owners, buyers, tenants and landlords. Learn to list, sell and lease various commercial properties. Explore basic evaluation and marketing tools. Learn to complete market surveys, commercial listing, sales and leasing agreements. Prereq: RES 110, or Washington Real Estate License or permission. Coreq: RES 125 recommended. (30 DOL clock hours and initial license renewal under RCW 18.85.095(2) (a).

**RES 295 (2) N**  
**Commercial Real Estate Investment Analysis**

Learn commercial real estate investment analysis: fundamentals of commercial leases, perform analysis, use and selection of discount and capitalization rates, tax laws and applications of decision-making tools. Bring programmable financial calculator. Prereq: RES 110, 125 and 290 (may be concurrent enrollment) or real estate experience or permission. (20 DOL clock hours).

**RES 298 (2-6) N**  
**Special Projects/Internships in Real Estate**

Research opportunities or unpaid work experience in real estate applications. Independent study on special projects. Credits vary. Prereq: Instructor permission (20-60 DOL clock hours).

**RELIGION****REL 150 (5) S**  
**Intro to Western Religions**

A social-historical survey of religions that have developed west of the Indus River. Promotes a better understanding of those traditions and their cultural influences on history.

**REL 151 (1) C**  
**Intro to Eastern Religions**

A social-historical survey of religions that have developed east of the Indus River. Promotes a better understanding of those traditions and their cultural influences on history.

**RESPIRATORY CARE****RCP 101 (1) C**  
**Respiratory Care Orientation**

Intro to concepts and principles of the Respiratory Care program. Emphasizes preparation for college, college resources, financial assistance, classroom, study and communication skills, strategies for taking exams, time management and stress and anger management. Prereq: Permission.

**RCP 110 (2) C**  
**Intro to Respiratory Care**

Intro to the respiratory care profession. Focus on historical development as well as current overview of the respiratory care practitioner role, medical ethics, death and dying. Prereq: Permission.

**RCP 112 (2) C**  
**Applied Microbiology & Chemistry**

Overview of microbiology, including development, fundamentals of chemistry, basic cell structure, relationships between humans and microbes and chemical and physical requirements of microbes. Covers microorganisms, differentiation of microbes, factors in disease and resistance, respiratory care infection control procedures and means for controlling organisms. Prereq: Permission.

**RCP 114 (4) C**  
**Respiratory Care Fundamentals I**

Intro to procedures used to assess and treat common respiratory diseases. Emphasis on skills to safely and effectively apply medical gas and aerosol therapy. Prereq: Permission.

**RCP 115 (1) C**  
**Pharmacology for Respiratory Care I**

Intro to pharmacology, including calculation of drug dosages, respiratory drug classifications and names and dosages for aerosolized bronchodilators. Prereq: Permission.

**RCP 120 (4) C**  
**Clinical Practice I**

Covers organization and function of an acute care hospital and typical respiratory care department. Continuation of skill development from RCP 114.

**RCP 123 (1) C**  
**Pathophysiology for Respiratory Care I**

Study how disease alters the normal function of the cardiopulmonary system. Recognize obstructive diseases, recommend and apply therapeutic measures and analyze clinical data and responses to treatment.

**RCP 124 (5) C**  
**Respiratory Care Fundamentals II**

Continuation of RCP 114. Emphasis on skills to safely and effectively care for patients with artificial airways. Apply concepts of asepsis to respiratory therapy equipment to prevent spread of infection and disease. Intro to electrocardiography, continuous positive airway pressure (CPAP) therapy, arterial blood gas interpretation and bedside spirometry.

**RCP 125 (1) C**  
**Pharmacology for Respiratory Care II**

Covers respiratory drug dilution and solution strengths, classifications of respiratory drugs and effects on the body and the effects of cardiopulmonary drugs on the autonomic nervous system.

**RCP 130 (5) C**  
**Clinical Practice II**

Continuation of RCP 120, with emphasis on sterile technique, managing patients with artificial airways and performing chest percussion and bronchial drainage.

**RCP 133 (1) C**  
**Pathophysiology for Respiratory Care II**

Recognize respiratory failure and infectious diseases, recommend and apply therapeutic measures and analyze clinical data and responses to treatment.

**RCP 134 (5) C**  
**Respiratory Care Fundamentals III**

Continuation of RCP 114 and RCP 124. Intro to techniques and equipment used in mechanical ventilation.

**RCP 135 (1) C**  
**Pharmacology for Respiratory Care III**

Covers mucus-controlling agents, surfactant agents in RCPs, aerosolized anti-infective agents and chemical mediators.

**RCP 137 (4) C**  
**Cardiopulmonary Anatomy & Physiology**

Covers functional characteristics of the human cardiopulmonary system and methods of measuring pulmonary component function. Includes lab practice of basic pulmonary function tests.

**RCP 139 (2) C**  
**Skills Review III**

Required for students returning to the program and requesting advanced standing. High motivation level required. Combines independent study and lab demonstrations. Course not required for program degree.

**RCP 196, 197, 198, 199 (2-5) C****Work Experience – Respiratory Care**

Earn work experience credit in the respiratory care field. Prereq: Permission.

**RCP 240 (4) C**  
**Clinical Practice III**

Continuation of RCP 130. Emphasis on managing patients with artificial airways, patients on mechanical ventilation and ICU monitoring techniques.

**RCP 241 (2) C**  
**Respiratory Care of Critically Ill Adults**

Focuses on diagnosis, treatment and special considerations of the patient. Examines the logic and reasoning skills used by the expert Respiratory Care Practitioner. Apply clarity, accuracy, precision, relevance, depth, breadth, logic and significance through laboratory and physical means to provide safe and effective care.

**RCP 243 (1) C**  
**Pathophysiology for Respiratory Care III**

Recognize respiratory ailments common in critical illness, recommend and apply therapeutic measures and analyze clinical data and responses to treatment.

**RCP 244 (3) C**  
**Respiratory Care Fundamentals IV**

Continuation of RCP 114, 124 and 134. Covers all aspects of monitoring critically ill patients (hemodynamics). Discussion of chest trauma, ARDS and sepsis syndrome.

**RCP 245 (1) C**  
**Pharmacology for Respiratory Care IV**

Continuation of RCP 115, 125 and 135. Covers advanced concepts including identification of drugs and mediators involved in airway inflammation and critical care.

**RCP 250 (6) C**  
**Clinical Practice IV**

Emphasis on treatment of newborn infants and children suffering from various cardiopulmonary disorders.

**RCP 251 (3) C**  
**Respiratory Care of Infants & Children**

Adaptation of respiratory care practices for treatment of infants and children. Focuses on anatomical, physiological and emotional differences from adults and modifications of equipment and therapy techniques to effectively treat their cardiopulmonary disorders.

**RCP 253 (1) C**  
**Pathophysiology for Respiratory Care IV**

Recognize common vascular and neurologic diseases and their effects on the respiratory system, recommend and apply therapeutic measures and analyze clinical data and responses to treatment.

**RCP 254 (3) C**  
**Respiratory Care Fundamentals V**

Covers advanced concepts and skills to care for neonates and pediatric patients. Provides training in establishing and maintaining the patient including ventilation systems and pediatric equipment.

**RCP 260 (6) C**  
**Clinical Practice V**

Covers safe and effective management of a patient on a mechanical ventilator.

**RCP 264 (3) C**  
**Respiratory Care Fundamentals VI**

Builds on the concepts and skills needed to care for critically ill patients. Emphasis on advanced methods of diagnosing and monitoring respiratory disorders including pulmonary function studies and sleep studies.

**RCP 270 (6) C**  
**Clinical Practice VI**

Continuation of RCP 260. Focuses on determining ventilator discontinuance, transporting ventilator-dependent patients and setting up and monitoring various auxiliary airway pressure devices.

**RCP 272 (4) C**  
**Comprehensive Review of Respiratory Care**

Intro to computer use in health care. Emphasizes both resume and computerized board examination preparation. Covers preparation for National Board for Respiratory Care Entry Level and Advanced Practitioners examinations. Focuses on logic and reasoning skills used by the expert Respiratory Care Practitioner.

**RCP 274 (2) C**  
**Pulmonary Rehabilitation & Home Care**

Intro to concepts, knowledge and procedures specific to the respiratory care of adults and children with chronic cardiopulmonary disorders. Emphasis on patient education.

**RCP 276 (3) C**  
**Advanced Patient Assessment**

Covers appropriate assessment of the respiratory patient utilizing and analyzing history, physical examination, lab data, CXR, PFT and EKG data.



**RCP 299 (1-3) C****Independent Study in Respiratory Care**

Independent study in selected respiratory care topics under the supervision of the program director. Topics coincide with the quarter's curriculum.

**RUSSIAN**

See *Languages & Literature*, page 252.

**SCIENCE****SCI 090 (5) N,S****Basic Scientific Ideas**

Covers major concepts and ideas in science, exploring biology, physics, chemistry, geology, astronomy and ecology. Lab included. Satisfies science requirement of the high school completion program.

**SCI 100 (5) C,N****Intro to Science**

Covers basic principles and current scientific thought in the major fields of science, including history, philosophy, and methodology. No credit for students who have completed major-level science courses. Non-lab course.

**SCI 101 (5) C,N,S****Intro to Physical Science**

Through selected topics in the physical sciences, learn the process of science: Question, Observe, Organize/Analyze and Report. At each stage ask: Which aspects of this step are culturally dependent and which are not? Hands-on explorations guided by inquiry-based material.

**SCI 104 (5) C,S****Physical Science**

Intro to the physical world through everyday applications of physical science principles. Examines fundamentals of physics and chemistry in light of the scientific method.

**SCI 110 (5) S****Intro to Robotics**

Intro to design, construction and programming of autonomous mobile robots. Using complete robot kits (micro-controller, sensors, motors, building parts), work in teams to study design issues of mechanics, sensors, motors and control. Design and construct a robot that will accomplish a particular task.

**SCI 111 (1) C,N****Geology Field Day**

(Formerly SCI 115) Covers the best of the region's geology, including the Seattle Fault, ancient glaciers, fossil forests, landslides, Cascade Mountains and northeastern Oregon. Lab credit (N). May be taken as GEOL 111.

**SCI 112-118 (1 EA) C,N****Science Field Days**

Series of 1-credit courses consisting of five hours of lecture and a one-day field trip. Requires varying transportation fees.

**SCI 112 (1) C,N****Seashore Life**

Explores seashore life in the Pacific Ocean and Puget Sound.

**SCI 113 (1) N****Marsh Ecology**

Explore the science of ornithology in the classroom and the field. Lab credit.

**SCI 114 (1) N****Field Astronomy**

Covers astronomy from a hands-on perspective in the field.

**SCI 116 (1) C,N****Edible Plants of the Northwest**

Focuses on edible and medicinal plants of the Pacific Northwest. Lab credit.

**SCI 117 (1) C,N****Wildflowers of the Northwest**

Classification and ecology of lowland to alpine wildflowers of the Pacific Northwest. Lab credit.

**SCI 118 (1) C,N****Volcano Field Day**

Intro to the origin and destruction of Cascade volcanoes such as Mount St. Helens, Mount Rainier and Glacier Peak. Lab credit (N). May be taken as GEOL 118.

**SCI 119 (3) N****Natural History of the Pacific Northwest**

Geology, zoology, and botany integrated around field excursions to various biomes in the Pacific Northwest. Field trips required. Lab credit. Transportation fees required.

**SCI 121 (5) N****Natural Disasters**

Natural disasters strike all over the world each year. Study how sciences such as geology and meteorology are used to identify, prepare for and possibly mitigate various natural disasters. Satisfies lab requirement for the A.A. degree. Placement into ENGL& 101 or ENG 101 strongly recommended.

**SCI 298 (1-5) C,N,S****Special Topics**

Seminar of selected topics or activities in the sciences. Prereq: Variable, dependent on topic.

**SCI 299 (1-5) C,N,S****Independent Study**

Independent study of approved topics in the sciences. Prereq: Permission.

**SENIOR ADULT EDUCATION****FAM 012 (1-3) C,N,S****Life Enrichment for Seniors**

Provides opportunities for seniors to stay informed on current social issues and meet the challenge of continual learning. Includes subjects in the fine arts, social sciences, humanities and sciences.

**FAM 013 (1-3) C,N,S****Living Skills for Seniors**

Covers information, resources and skills helping seniors to live healthy, independent lives. Includes topics in health, nutrition, consumer education, community resources, exercise, crime prevention, lip-reading and memory improvement.

**FAM 014 (1-3) C,N,S****Positive Growth for Seniors**

Includes classes in self-image, writing your life story, decision-making, widowhood, interpersonal communication and similar topics.

**SEN 001 (0) N****Avocational Explorations for Seniors**

Non-credit course. Provides opportunities for learning avocational skills and developing personal talents, hobbies and interests.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
**HIN** . . . . . **Watch Technology**

**NAME TO PREFIX**  
**Watch Technology** . . . . . **HIN**

**SERVICE LEARNING****SLN 101 (2-3) N****Service Learning & Leadership**

Serve the campus and/or local community in conjunction with class seminars that require reading, writing and observation related to the work. Prereq: Instructor permission.

**SLN 102 (2-3) N****Service Learning & Leadership**

Continuation of SLN 101. Prereq: Instructor permission.

**SLN 103 (2-3) N****Service Learning & Leadership**

Continuation of SLN 102. Prereq: Instructor permission.

**SOCIAL & HUMAN SERVICES****SHS 100 (5) C****Intro to the Human Services**

Overview of the human service field with emphasis on the role of the professional. Includes career development, attitudes and values, behavioral and cultural differences, individual and group intervention techniques and community awareness. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 103 (5) C****Survey of Institutions**

Intro to social welfare institutions. Explores common social problems such as poverty, homelessness, substance abuse, racism, sexism. Emphasis on social systems set up to solve these problems. Use critical thinking skills in analysis of issues, presentation of quantitative information and interpretations of statistics on local community issues and concerns. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 106 (5) C****Principles of Interviewing & Counseling**

Intro to interviewing and basic counseling skills. Exploration of personal values, motivations, biases and needs. Development of beginning-level counseling skills and awareness of unique qualities each brings into the helping profession. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 108 (5) C****Group Dynamics & Counseling**

Intro to group work, including group processes, communication patterns, group and individual goal-setting, leadership and decision-making. Includes group participation, role-playing and simulations. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 150 (1) C****HIV/AIDS Workshop**

Meets requirements for social and human service professionals in the fields of counseling, alcoholism and/or substance abuse. Includes etiology and epidemiology of HIV, transmission and infection control, testing and counseling, clinical manifestations and treatment, and psychosocial issues. Approved by the Washington State Division of Alcoholism and Substance Abuse.

**SHS 197, 198, 199 (2-5 EA.) C****Field Placement: Social & Human Services**

Work experience in human services agencies, with individual and group supervision provided by agency professionals to share experiences and further develop work-related skills. Prereq: Permission.

**SHS 200 (4) C****Theories of Counseling**

Intro to psychopathology and assessment and counseling theories. Covers ethics, personality theory, counseling techniques and issues, and development of a personal style of assessment and counseling. Prereq: SHS 106.

**SHS 205 (3) C****Crisis Management & Intervention**

Intro to crisis theory and techniques for beginning mental health/human services professional. Emphasis on high-stress populations requiring immediate intervention. Includes psychiatric emergencies, sexual assault, incest, battered women, death and dying, loss, assessment techniques and in-depth interviewing skills. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 207 (3) C****Behavior Management**

For human service professionals working with children, adolescents and adults with behavioral problems. Covers learning theory and its application to clients in a variety of settings. Includes knowledge and skills needed to effectively help clients manage their behavior. Understand and practice behavior modification and management. Prereq: ENGL& 101 or ENG 101 and eligible for MATH 084.

**SHS 210 (3) C****Multicultural Counseling**

Covers effective counseling approaches which take into account client differences in culture, gender, sexual orientation, physical abilities and ethnicity. Learn to interview client group representatives and assess community resources. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 215 (5) C****Adolescent Development & Treatment**

Focuses on adolescent development and concurrent social, cultural and sexual problems. Includes theory of normal and deviant behavior development, treatment theory and practice and effective use of community resources. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 222 (3) C****Conflict Management**

Intro to understanding and responding effectively to conflict situations. Includes exploration of conflict dynamics, conflict diagnosis and assessment, designing appropriate interventions and interpersonal communication skills. Prereq: ENGL& 101 or ENGL 101 and MATH 084.

**SHS 223 (1) C****Multicultural Counseling - GLBT**

Overview of Gay, Lesbian, Bisexual, and Transgender (GLBT) culture and issues. Covers theory, research and practices associated with GLBT multicultural competence, as well as the intersections of GLBT culture and race, ethnicity, gender, religion, sexuality and social class. Prereq: ENGL& 101 or ENG 101 and MATH 084.

**SHS 224 (3) C****Leadership Theory & Skills**

Covers selected major theories of effective leadership and application of leadership skills in the work setting. Examines the characteristics of effective leaders, and evaluates students' professional strengths for potential leadership development. Prereq: ENGL& 101 or ENG 101 and MATH 084.

**SHS 231 (3) C**  
**Physiology/Pharmacology of Chemical Dependency**

Effects of chemical dependency on the body, including basic biochemical action, organ/system effects, poly drug interactions and physiological management of the disease. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 232 (3) C**  
**Chemical Dependency & the Family**

Examines chemical dependency problems in the family, including family roles and dynamics, adult children of alcoholics, interventions and family work as focus of treatment. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 233 (5) C**  
**Chemical Dependency Counseling**

Provides an overview of specialized recovery techniques, including individual, group and family approaches. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 235 (5) C**  
**Intro to Chemical Dependency**

Surveys use and abuse of legal and illegal drugs. Analyzes patterns of dependency and addiction associated with prescription, over-the-counter and illegal substances. Explores methods of prevention, control and treatment. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 242 (5) C**  
**Mental Health Diagnosis in Chemical Dependency & Other Human Service Settings**

Intro to the DSM IV system of determining diagnosis and current theory for etiology of the primary Axis I and Axis II disorders. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 245 (3) C**  
**Mental Health Overview**

Covers the relationship between mental functioning and body physiology; behavioral and physical dysfunctions; reactions to prolonged stress; theories of pain, holistic health, nutrition, cross-cultural perspectives on healing, biofeedback, meditation, psychosomatic diseases and stress reduction. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 250 (4) C**  
**Client & Community Advocacy**

Covers the role of the advocate in a helping situation, use of community advocacy resources and effective use of the media, law, negotiation and political process to achieve needed services for people. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 255 (5) C**  
**Dual Diagnosis: Treatment Issues & Services**

Explores skills and knowledge needed for working with clients with mental illness and chemical dependency. Covers symptomatology of frequently diagnosed mental disorders; criteria for substance and dependence; identifying referral needs and processes; treatment needs and barriers; and local services and case management available for the mentally ill chemically abusing (MICA) client. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 265 (5) C**  
**Management & Supervision**

Covers management skills for first-line supervisors in alcohol, drug, mental health, correctional, youth and other human service programs. Includes supervision, time management, motivation, leadership, discipline, personnel management, performance appraisals, communications, training and self-development. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 270 (3) C**  
**Law & Ethics in Chemical Dependency**

Studies the role of law and professional ethical standards in the delivery of chemical dependency services. Covers theoretical and practical applications using Washington Administrative Code requirements as case examples. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 275 (3) C**  
**Chemical Dependency & Domestic Violence**

Specifically designed for those working with chemically addicted, abusive clients and their interactions with family members. Study of treatment goals for domestic violence to foster client understanding of anger, making anger a useful tool and using healthy and appropriate modes of communication. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 280 (3) C**  
**Chemical Dependency Case Management**

Emphasis on oral and written communication skills. Formulate up-to-date, accurate and understandable case files and records. Learn federal and state confidentiality regulations in handling chemical dependent client records. Formulate concise treatment plans in accordance with legal requirements. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 296 (1) C**  
**SHS 297 (2) C**  
**SHS 298 (3) C**

**Human Services Workshops**

Receive credit for participation in approved human services professional workshops on topics such as stress management, welfare rights, aging, alcoholism, family therapy, depression, law and mental health. Prereq: Eligible for ENGL& 101 or ENG 101 and MATH 084.

**SHS 299 (1-5) C**  
**Independent Study Research**

Individual or group research projects on human service programs and problems. May include field or library research. Requires learning contract.

**SOCIAL SCIENCES**

**SSC 101 (3) N**  
**Intro to Information Resources for the Social Sciences**

Develops critical thinking by locating, evaluating and applying information resources in the social sciences. Explores information policy issues such as copyright, censorship and freedom of information. Emphasis on proficiency using research tools, retrieval techniques and various electronic resources, including the library's information networks, catalog and the Web. Placement into ENGL& 101 or ENG 101 highly recommended.

**SSC 103 (5) N**  
**Human Dimensions of Work**

Covers human relations issues in the modern workplace. Includes contextual approach to understanding human relations, scientific research methods and theories of worker motivation and satisfaction. Examines work in relation to the economy, social institutions, diversity, prejudice and discrimination, interpersonal dynamics, leadership, conflict resolution, stress and ethics. Focuses on practical understanding and effective ways of dealing with issues.

**SSC 130 (3-5) C,N**  
**Death, Dying & Living**

Study of the experience surrounding dying and death. Examines such situations as dealing with the death of others, your own death, the biology of death, suicide and other issues.

**SSC 187 (5) C**  
**Information, Knowledge & Power**

Explores theories of mainstream and alternative cultures and their impact on information in a democratic society. Addresses concerns about the political and economic aspects of information related to the ongoing struggle for equality and human rights. Examines various research strategies for identifying, locating, evaluating and applying information resources for social justice.

**SSC 197 (1-12) C**  
**Work Experience – Social Sciences**

Earn work experience credit in the social science field. Prereq: Permission.

**SSC 220 (3) N**  
**Global Issues**

Provides vocational technical students with insight into topics of an international nature.

**SSC 290 (2) C,N**  
**Curriculum Practicum**

For educators. Examines the development of teaching/learning materials based on areas covered in the study and travel program. Includes class work and field trip.

**SSC 294 (2-5) C,N**  
**Practicum in the Social Sciences**

Application of theory and methodology in actual practice. Provides experiential learning in a community service agency. Create an individual contract by arrangement.

**SSC 297 (5-10) C,N**  
**Travel/Study Experience**

Hands-on learning opportunity for students in domestic and/or foreign travel. Focuses on learning outside the classroom and taking advantage of cross-cultural opportunities. Includes historic sites, geographical locations, geological formations, museums, art centers, regional customs and foods, language enhancement, specialized research libraries, local universities and legislatures available only through travel.

**SSC 295, 298, 299 (2-5) C,N,S**  
**Practicum in the Social Sciences**

Learn about basic research techniques, assist in planning and conducting a research project and in processing the resulting data.

**SWF 200 (5) N,S**  
**Intro to Social Welfare**

Overview of the social welfare system and social work profession, including roles, fields, client populations and career options. Focuses on values, ethics, social welfare policy, social problems, social work practices, services, knowledge and skills. Includes issues of diversity, social and economic justice and global perspectives. Prereq: ENGL& 101 or ENG 101.

**SOCIOLOGY****SOC& 101 (5) C,N,S**  
**Intro to Sociology**

(Formerly SOC 110 - Survey of Sociology) Covers human social interaction with emphasis on group aspects of human behavior. Includes culture, socialization, family, education, urbanization, gender roles, social class, deviance, race, sexuality, demography and social change.

**SOC 102 (5) C,N**  
**Intro to American Culture**

Focuses on unique American values, behavior and world view. Compares others' values and world views and studies the implications and consequences of these differences. Gain insight from the perspectives of anthropology and sociology. Includes field trips. May be taken as ANTH& 106.

**SOC 105 (5) C**  
**Sociology of African Americans**

Evaluation of the sociological impact of the African-American experience in relation to various social systems in America.

**SOC 106 (5) C**  
**Sociology of Asian Americans**

Examination of Asian-American experiences in the United States from a sociological perspective. Analyzes Asian-American ethnic communities, social institutions, activities and issues.

**SOC 107 (3-5) C**  
**Sociology of Filipinos in America**

Examines the cultural, historical and situational forces shaping the Filipino community in America today. Studies the social and behavioral patterns of Filipino Americans within and outside of their community.

**SOC 120 (3-5) C**  
**Sociology of the Media**

Sociological perspective of print and electronic media, including television, film, news and advertising. Analysis of media institutions and the way they affect social, political and cultural discourse and identities. Examines how American identity shapes and is shaped by the media, including changes in this identity from one period to another.

**SOC 130 (5) C**  
**Living, Death & Dying**

Covers death and dying from a sociological perspective. Focus on relationships between death and other concepts such as socialization, stratification and culture. Examines resources and skills needed to work with the dying. Emphasizes a realistic look at death to reduce denial and increase preparation.

**SOC 150 (5) C,N,S**  
**Race & Ethnic Relations in the United States**

Examines the majority-minority pattern of interaction in American society. Includes theories of race relations and issues shaping intra- and interracial ethnic relations.

**SOC 170 (5) C,N**  
**Intro to Contemporary China**

Covers basic knowledge of the people, history, culture and socio-economic political systems of Chinese society. No prior knowledge of Chinese civilization or language is required.

**SOC& 201 (5) C,N**  
**Social Problems**

(Formerly SOC 270) Covers processes of social and personal disorganization and reorganization in relation to poverty, crime, drug use, family dissolution, mental disorders, sexual minorities, overpopulation and other social problems.

**SOC 220 (5) C**  
**Sex Roles & Society**

Survey of causes and consequences of sex/gender roles. Examines the relationships between men and women in the U.S. and other regions. Focuses on historical, biological, economical, psychological and anthropological perspectives, identifying and discussing the discernible recurring sex role patterns.

**SOC 230 (5) C,N,S**  
**Human Sexuality**

Survey of sexual behavior. Covers historical, physiological, psychological and social components of sexuality and its deviations. May be taken as PSYC 230.



**SOC 245 (5) C,N,S**  
**Social Psychology**

Examines the effect of others on the individual in areas such as self-concept, social cognition, aggression, conformity, helping, loving and liking, competition and cooperation and prejudice and discrimination. Research and autobiography by two of the following groups provide content and illustration: African Americans, Asian Americans, Native Americans and Hispanic Americans. May be taken as PSYC 245.

**SOC 250 (5) C,N**  
**Marriage, Family & Intimate Relationships**

Surveys the concept of family as a mode for personal living. Analyzes personal adjustment, parent-child relationships, marital and alternative structures and contemporary issues facing today's family systems.

**SOC 265 (5) C**  
**Sociology of Food**

Using sociological theories and concepts, study the social status and role of food in societies and the production, distribution and working conditions in various food industries. Examine the socio-cultural, economic and political migrations of people and ideas through foods. Consider foods in relation to global economies, governments, the dynamics of power and societal ways.

**SOC 275 (5) C**  
**Law & Society**

Covers the role of law in American society: what it is and what it should be. Survey of basic constitutional, business and personal legal concepts in theoretical and practical settings.

**SOC 280 (5) C**  
**Exploring Contemporary SE Asia**

Explores the internal diversity and complexity of SE Asia to gain a clearer sense of this region and its connection to the social, political and economic global system. Examines the diversity of perspectives existing within localities, regions and societies.

**SOC 298 (1-5) C,N,S**  
**Special Topics in Sociology**

Independent study in selected sociology topics under faculty supervision. Prereq: Permission.

**SOC 299 (3-5) C,N**  
**Special Problems in Sociology**

Small group seminar to discuss selected sociology topics. Prereq: Permission.

**SPANISH**

*See Languages & Literature, page 252.*

**SUPERVISION & MANAGEMENT****SMG 100 (3) S**  
**Leadership & Supervision**

Intro to management. Covers leadership theories, style skills in various organizational settings; developing techniques for productive work groups; managing a diverse work force; motivating employees; handling difficult people and situations; running effective meetings; and handling the responsibilities of being a leader, manager and supervisor.

**SMG 103 (3) S**  
**Supervising a Diverse Workforce**

Examines perceptions held by supervisors and employees in connection with culturally and behaviorally diverse workers. Examines working with and supervising diverse population groups. Explores current legislation and challenges of an evolving workforce.

**SMG 110 (3) S**  
**Financial Management**

Covers budget preparation at the organizational level using both private sector and public organization formats and formulas. Emphasis on budget development, presentation and justification of proposed allocations. Prereq: Basic understanding of business computations.

**SMG 120 (3) S**  
**Hiring Personnel**

Examines supervisor's role in staffing. Covers job analysis, descriptions and classifications, recruiting, selection, EEO and new employee orientation.

**SMG 131 (3) S**  
**Supervision & Group Behavior**

Overview of group dynamics, moderation, strategies and productivity in the work place, with emphasis on diversity. Prereq: SMG 100.

**SMG 150 (3) S**  
**Training, Orientation & Employee Development**

For students starting employee training in industry. Survey of basic teaching and learning processes; motivation; learning styles; occupational analysis; course organization; selecting and preparing training materials; presentation methods; and evaluation of student outcomes and learning styles.

**SMG 197 (1-15) S**  
**Internship or Cooperative Education Experience**

Spend time in the field as an intern or cooperative education student under guidance of instructor and on-site mentor. Learn about operations, policies, procedures, culture and behavior standards in a business, industry, shop or other setting related to the student's course, certificate or degree program. May be taken during or after coursework. Prereq: Permission.

**SMG 201 (5) S**  
**The Manager as an Entrepreneur**

Study of the major steps, formation and growth for setting up a new small business or department, project or contract within a large organization. Focuses on entrepreneurial characteristics and the task of moving from concept to commercialization. Emphasis on time management, planning and projections, securing capital and marketing plans. Prereq: SMG 100.

**SMG 210 (3) S**  
**Project Management**

Covers project planning basics: timelines, evaluation, implementing budgeting concepts and formulating a budget request strategy with specific and measurable outcomes. Focuses on team concepts. Includes computer lab applications.

**SMG 213 (2) S**  
**Fund-Raising & Grant Writing**

Especially for nonprofits. Explores fundraising and grant writing, including identifying fund-raising needs and goals; designing a viable fund-raising program (campaign); creative fund-raising activities; writing grants; understanding grant requirements and their relationship to the nonprofit.

**SMG 217 (3) S**  
**Organizational Behavior**

Intro to strategies for developing an effective organization. Provides history of the field, overview of areas in which organizational behavior interventions can be of use and the types of interventions used in work environments.

**SMG 220 (3) S**  
**Personnel Performance Management**

Covers principles and techniques for employee performance programs, appraisals, coaching and counseling, disciplinary process and wage surveys. Explores reward systems, common disciplinary practice and employment law. Covers assessment of training needs, planning, development and evaluation of training programs.

**SMG 222 (3) S**  
**Management & Labor Relations**

Covers the supervisory role in employee and labor relations. Includes history of management thought, labor negotiations, laws affecting labor agreements, union contracts and the supervisor's role in the negotiating process.

**SMG 223 (2) S**  
**Marketing, Meetings & Presentation Skills**

Explores the dynamics of the marketing process. Includes the relevance of marketing a nonprofit and communicating to its numerous constituencies. Covers productive meetings and presentational skills and techniques for nonprofit leadership.

**SMG 233 (2) S**  
**Nonprofit Staff, Board & Volunteer Development**

Covers the development of staff, board and volunteers. Explores election of staff and board members, developing and capitalizing on their talents and skills, effective use of staff, drawing on the expertise of board members and expanding programs through the cultivation of volunteer/member development.

**SMG 243 (2) S**  
**It's the Law: Contracts & Liabilities**

Covers the law as it relates to contracts and liabilities in nonprofits. Focuses on legal issues that nonprofit staff and boards need to be aware of, including personnel contracts, grant contracts, personal service contracts, fund-raising contracts, service provider contracts, antitrust and related liabilities. Includes employment laws, officer/director liabilities and indemnification.

**SMG 253 (2) S**  
**Executive Development & Leadership**

Focuses on the role of executives in a nonprofit. Explores dynamic and practical leadership skills including characteristics and styles; team-building; organizational leadership and board relations; constituent leadership; fund-raising; crisis management; and political leadership. Covers self-nurturing and expansion of professional competencies.

**SMG 263 (2) S**  
**Nonprofit Strategic Planning**

Focuses on nonprofit planning including mission statement, program goals and objectives, annual plan and long range strategic plan. Covers membership development, fundraising plans and board, staff and constituent development.

**SMG 265 (3) S**  
**Marketing Management**

Overview of marketing, promotion, advertising, sales, public relations and customer service in an organization. Compares, contrasts and defines the role of each function in business.

**SMG 295 (VARIABLE) S**  
**Externship in Supervision & Management**

Earn college credit for supervisory work experience in the City of Seattle PREP program or others. Requires documentation and supporting data, work experience and possible examination. Credit varies. Prereq: SMG 100.

**SMG 298 (1-10) S**  
**Independent Study**

Provides opportunity for research, advanced study, or special projects. Work independently with an instructor. Credits vary. Prereq: Permission.

**SMG 299 (1-10) S**  
**Special Topics**

Study an approved topic such as marketing, sales, advertising, retail management, promotion, customer service, consumer behavior, marketing research, entrepreneurship and business communication. May include a portfolio, project or activity to demonstrate competencies. Includes an oral presentation evaluated by faculty and industry representatives. Prereq: Permission.

**SURGICAL TECHNOLOGY****STT 111 (5) C**  
**Surgical Technology Lab**

Covers principles and techniques of operating room procedures. Includes surgical scrub techniques, gowning and gloving, aseptic technique, creating and maintaining a sterile field, draping materials, basic instrumentation and patient transport. Prereq: Permission.

**STT 113 (8) C**  
**Surgical Technology I**

Intro to surgical technology, including legal and ethical aspects, relationships with co-workers, hospital organization and inter-departmental relations, physical and psychological aspects of patient care, operating room techniques and procedures. Prereq: Permission.

**STT 115 (2) C**  
**Clinical Orientation**

Intro to health care and the operating room. Covers observation of the environment, routines, supplies and equipment, patient-team interaction and application of scientific principles. Prereq: Permission.

**STT 123 (14) C**  
**Surgical Technology II**

Examines microbiology, pharmacology and anesthesiology relating to the surgical patient. Includes additional perioperative care techniques and surgical procedures, pathophysiology and the technologist's role in surgery. Covers general, orthopedic, gynecological, genitourinary-reproductive and ophthalmic specialties.

**STT 125 (5) C**  
**Clinical Practice I**

Provides clinical practice, with focus on development of entry-level skills.

**STT 133 (5) C**  
**Surgical Technology III**

Continuation of STT 123. Intro to circulating duties and job applicant skills. Covers advanced surgical specialties such as ear, nose and throat, vascular, cardiovascular, thoracic, neurological, plastic/reconstructive and pediatric procedures.

**STT 135 (8) C**  
**Clinical Practice II**

Continuation of STT 125. Provides advanced clinical practice to develop entry-level skills.

**STT 200 (20) C**  
**Intro to Perioperative Nursing**

Covers duties and responsibilities of perioperative nursing and technical skills for OR nursing. Examines physical and psychological concepts of patient care and procedures required to scrub and/or circulate in the operating room. Prereq: Washington state RN licensure.

**TRADES**

See *Pre-Apprentice Program at SVI*, page 168.

See *South's Georgetown Campus, Apprenticeship & Education Center programs*, page 136.

**TRUCK DRIVING –  
COMMERCIAL****CTD 131 (18) S**  
**Fundamentals of Truck Driving**

Provides technical and background knowledge necessary to test for Washington State Commercial Driver's License written knowledge test and then begin CTD - 132. Prereq: CDL Learner's Permit - Department of Licensing; current DOT Physical Examination (long form and card); current copy of Driving Abstract (driving record); No DUIs last 5 years.

**CTD 132 (7) S**  
**Basic Driver Training**

Provides technical and practical driving and operational skills necessary to safely and efficiently operate commercial motor vehicles. Students test for their Class "A" Washington State Commercial Driver's License and after successful completion will have the basic entry-level skills to drive a commercial vehicle. Prereq: CTD 131.

**CTD 133 (7) S**  
**Advanced Driver Training I**

Provides technical and practical driving experience to safely and efficiently operate commercial motor vehicles in actual day-to-day driving situations. Includes operation of commercial motor vehicles under direction of employer. Prereq: CTD 132.

**CTD 136 (10) S**  
**Heavy Duty Mechanics Basic Driver Training**

Provides technical knowledge and practical skills to test for the Washington State Commercial Driver's License. After successful completion of the basic entry level skills, provides student mechanics the skills to drive a commercial vehicle. Prereq: 1 Year of Heavy Duty Mechanic Skills; current DOT Physical Examination (long form and card); current copy of Driving Abstract (driving record); CDL Learner's Permit - Department of Licensing.

**CTD 138 (24) S**  
**Basic Fundamentals of  
Commercial Vehicle Driving**

Provides technical and background knowledge to test for the Washington State Commercial Driver's License written test. During the course, students will skill test for the Class "A" Washington State Commercial Driver's License.

**CTD 298 (2-10) S**  
**Special Topics/Training for  
Commercial Truck Driving**

Provides short-term individual training for those who currently have or have had a CDL License.

**VIDEO COMMUNICATIONS**

See *Film & Video Communications*, page 212.

**VIETNAMESE**

See *Languages & Literature*, page 253.

**WATCH & CLOCK TECHNOLOGY****HIN 111 (6) N**  
**Watch Technology I – Intro**

Surveys history of time measurement and the watch and clock trade. Develop safe practices regarding lab hazards, accident prevention and first aid. Intro to trade terminology of tools, equipment, technical drawing, measuring devices, applications appropriate to the trade and chemical and physical properties of materials. Coreq: HIN 112 and 113.

**HIN 112 (6) N**  
**Watch Technology I: Tools,  
Equipment/Measurement**

Use and maintain tools and equipment in a lab setting. Learn the types and appropriate uses of jeweler's saw, tweezers, screwdrivers, files and the watchmaker's lathe. Covers fundamentals of hardening, tempering and annealing steel. Includes measuring techniques and applying the metric system in the use of instruments and gauges. Coreq: HIN 111 and 113.

**HIN 113 (10) N**  
**Watch Technology I: Practicum**

Apply knowledge from HIN 111 and HIN 112 in a lab environment. Practice making tools and develop basic skills to manufacture and repair watch and/or clock parts. Identify and apply tools, equipment use and safety precautions. Practice measuring techniques and apply problem-solving skills to manufacturing. Coreq: HIN 111 and 112.

**HIN 121 (6) N**  
**Watch Technology II:  
Professional Knowledge**

Learn or review the math necessary to calculate formulas used in manufacturing and watch repair. Use formulas to find the length of mainsprings, calculate running time and beats per hour. Apply various polishing materials and techniques to master the manufacture of small parts.

**HIN 122 (6) N**  
**Watch Technology II:  
The Watchmakers' Lathes**

Intro to use, care and maintenance of specialty lathes using the watchmakers' turns, the Jacot tool and pivot polishing machine.

**HIN 123 (10) N**  
**Watch Technology II: Practicum**

Apply knowledge from HIN 121 and HIN 122. Practice manufacturing watch stems and pivoting. Take the first WOSTEP intermediate exams. Identify and apply appropriate tools, equipment and safety precautions in a horological repair shop.

**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 328. For example:

**PREFIX TO NAME**  
HIN . . . . . Watch Technology

**NAME TO PREFIX**  
Watch Technology . . . . . HIN

**HIN 131 (6) N**

**Watch Technology III:  
Winding & Setting Mechanisms**

Learn to correct common errors in the main-spring barrel, the barrel bridge and mainplate. Learn common types of setting mechanisms. Practice correct disassembly, assessment and adjustment, re-assembly and lubrication procedures. Learn mathematical formulas for determining correct size of mainsprings. Prereq: HIN 121, 122 and 123. Coreq: HIN 132 and 133.

**HIN 132 (6) N**

**Watch Technology III: Watch Gear Trains**

Intro to the mathematics involved in working with the gear train and tooth form; module; pitch and distance between centers, including calculations to determine running time and vibrations per hour, for mechanical watches and ratios. Learn to dismantle, assemble, maintain and repair the gear train of a watch. Prereq: HIN 121, 122 and 123. Coreq: HIN 131 and 133.

**HIN 133 (10) N**

**Watch Technology III: Practicum**

Apply knowledge from HIN 131 and 132. Practice jewel setting and adjusting. Complete the third WOSTEP intermediate exam (winding, setting, gear train). Identify and apply appropriate tools, equipment and safety precautions in a horological repair shop. Prereq: HIN 121, 122 and 123. Coreq: HIN 131 and 132.

**HIN 141 (4) N**

**Watch Technology IV: Escapements**

Intro to the role of escapement in the watch. Explores history and development of different escapements and their influence on timekeeping. Prereq: HIN 131, 132 and 133. Coreq: HIN 142 and 143.

**HIN 142 (4) N**

**Watch Technology IV: External Parts**

Learn about different case styles and parts that complete the case, including crystals, crowns, push buttons, dials, hands and gas-kets. Prereq: HIN 131, 132 and 133. Coreq: HIN 141 and 143.

**HIN 143 (48) N**

**Watch Technology IV: Practicum**

Apply knowledge gained in HIN 141 and 142. Prereq: HIN 131, 132 and 133. Coreq: HIN 141 and 142.

**HIN 211 (6) N**

**Watch Technology V:  
Intro to Precision Timing**

Learn concepts of precision timing with emphasis on the eight influences of isochronisms (friction, external influence, regulating pins, escapement, magnetism, temperature, poisoning of balance wheel, poisoning of hairspring). Apply theoretical concepts of precision timing to practice watches; analyze errors and make corrections to improve timekeeping of the watches. Prereq: Instructor permission, HIN 141, 142 and 143 with 2.0. Coreq: HIN 212 and 214.

**HIN 212 (6) N**

**Watch Technology V:  
Intro to Electronic Watches**

Learn fundamentals of electronics to understand how quartz watches work: tension, current, capacity, power, consumption, electric field, magnetic field, functioning of stepping motors, energy source and functioning of the transistors in switching. Intro to equipment designed specifically for testing quartz watches and practice using the equipment to analyze the various components of electronic watches. Prereq: Instructor permission, HIN 141, 142 and 143 with 2.0. Coreq: HIN 211 and 213.

**HIN 213 (10) N**

**Watch Technology V: Practicum**

Intro to repair of pocket watches and/or wristwatches and service, repair and replacement of external parts of watches. Work on precision timing, quartz watches, customer repairs including short jobs (battery, crystal, crown and stem replacement) and movement repairs. Prereq: Instructor permission, HIN 141, 142 and 143 with 2.0. Coreq: HIN 211 and 212.

**HIN 221 (6) N**

**Watch Technology VI: Precision Timing 2**

Continue study of theory and practical application of the principles of precision timing. Prereq: HIN 211, 212 and 213. Coreq: HIN 222 and 223.

**HIN 222 (6) N**

**Watch Technology VI: Automatic Watches**

Intro to the various self-winding (automatic) mechanisms for watches. Practice testing, adjusting, disassembly and assembly of automatic mechanisms. Study history and development of these mechanisms. Prereq: HIN 211, 212 and 213. Coreq: HIN 221 and 223.

**HIN 223 (10) N**

**Watch Technology VI: Practicum**

Apply knowledge from HIN 221 and 222. Practice repairing automatic watches and continue working on precision timing. Further develop skills with appropriate tools, equipment and safety precautions in a horological repair shop. Prereq: HIN 211, 212 and 213. Coreq: HIN 221 and 222.

**HIN 231 (6) N**

**Watch Technology VII:  
Advanced Precision Timing**

Refine and synthesize the art of precision timing. Each unit of the watch must be clean and well-adjusted. Check each unit systematically so that repairs are made in a timely fashion. Prereq: HIN 221, 222 and 223. Coreq: HIN 232 and 233.

**HIN 232 (6) N**

**Watch Technology VII: Chronographs**

Learn to repair the main types of chronographs: column wheels and cams. Learn the function and the components of chronographs and methods of checking the general condition and correct fitting of all the components. Understand and correctly apply lubrication, identify errors and carry out required corrections. Prereq: HIN 221, 222 and 223. Coreq: HIN 231 and 233.

**HIN 233 (10) N**

**Watch Technology VII: Practicum**

Apply knowledge from HIN 231 and 232. Practice repairing chronograph watches and continue working on precision timing. Further develop skills to identify and apply appropriate tools, equipment and safety precautions in a horological repair shop. Prereq: HIN 221, 222 and 223. Coreq: HIN 231 and 232.



**HIN 241 (4) N**  
**Watch Technology VIII: After Sales & Service**  
 Learn the range of skills necessary to manage a watch repair shop. Prereq: HIN 231, 232 and 233. Coreq: HIN 242 and 243.

**HIN 242 (4) N**  
**Watch Technology VIII: Review of Courses**  
 Review highlights of the two-year Watch Technology Program in preparation for final exams. Prereq: HIN 231, 232 and 233. Coreq: HIN 241 and 243.

**HIN 243 (8) N**  
**Watch Technology VIII: Practicum**  
 Apply knowledge from HIN 241 and 242. In laboratory environment, practice repairing all types of watches and review the theory of watch making. Prereq: HIN 231, 232 and 233. Coreq: HIN 241 and 242.

## WEB DEVELOPMENT

See *Information Technology (IT)*, page 230, and *Computing Technology*, page 194.

## WELDING FABRICATION TECHNOLOGY

**WFT 100 (2) S**  
**Welding Processes & Applications**  
 Explores applications and criteria for selecting the most widely used types of weld joints and weld-related metal joining processes: gas metal arc welding, flux-cored arc welding, shielded metal arc welding, gas tungsten arc welding, submerged metal arc, oxyacetylene, brazing, soldering and cutting, plasma arc cutting and resistance welding.

**WFT 101 (1) S**  
**Use of Power Tools in Welding Fabrication**  
 Covers knowledge and practical uses of both air-powered and electric-powered metal fabrication tools used for assembly, drilling, die cutting, polishing, deburring, grinding, chipping, sanding, sawing, shearing, punching, forming and threading. Prereq: Permission.

**WFT 105 (2) S**  
**Use of Blueprints in Welding Fabrication**  
 Intro to blueprint reading for both mechanical and structural welded fabrications. Investigates use of lines, views and projections, extraction of dimensions and material list ("takeoffs") and interpretation of fabrication details and operation sequences. Covers use of welding symbols. Prereq: Permission.

**WFT 106 (2) S**  
**Basic Layout Skills**  
 Covers the practical transfer of blueprint information onto metal using a variety of techniques and applications of geometric shape constructions and divisions in the shop environment. Presents shortcuts to achieve both dimensional accuracy and quality assurance. Prereq: Basic math skills and ability to read blueprints or permission.

**WFT 107 (2) S**  
**Advanced Layout**  
 Covers class and lab work using parallel, round and radial development methods as well as triangulation. Includes scaling up and down from models and construction of production locating and forming jigs. Involves field trip to on-campus or local industry CAD station. Prereq: WFT 106, basic math skills, ability to read blueprints, or permission.

**WFT 108 (3) S**  
**Fabrication Estimating & Layout**  
 Explores practical uses of basic math skills for estimating and layout in fabrication of welded products. Includes use of a calculator, data books, tables and model construction. Prereq: Basic math skills or permission.

**WFT 109 (2) S**  
**Development of Welding Procedure**  
 Explore and experiment in more depth with reasonable possibilities in joint design, process selection, filler products, weld position and essential and non-essential variables of a welding procedure. Serves as a "recipe development" course for making good welds. Prereq: Cutting, forming and arc welding skills, ability to read blueprints or permission.

**WFT 110 (3) S**  
**Motor Vehicle Welding Fabrication**  
 Intro to welding fabrication skills involved in maintenance and repair of highway and other motor vehicles. Prior knowledge of hand and basic power tools helpful. Fabricate projects. Individually paced class based on student skills. Prereq: Enrollment in the Motor Vehicle Maintenance program or permission.

**WFT 119 (2) S**  
**Use of Press Brake in Welding Fabrication**  
 Study the operating principles of press brake and practice fabrications. Explores advantages, disadvantages and limitations of the press brake through construction of sample projects. Involves industry visitation(s) to observe CNC production press brakes. Prereq: Basic math skills, ability to read blueprints, ability to lift 50 lbs., or permission. Prior fabrication experience is helpful.

**WFT 120 (5) S**  
**Shielded Metal Arc Welding**  
 Incorporates practical exercises that convey knowledge of equipment along with theory of operation and applications of the (venerable and still-useful) Shielded Metal Arc Welding (SMAW) process also called "Stick Welding." Weld mild steel and stainless steel in a variety of industrial applications particularly for maintenance and repair. Can be used to join cast iron, bronzes and aluminum. Prereq: Some experience with OAW ("gas welding") or permission.

**WFT 121 (5) S**  
**Basic Oxyacetylene Cutting & Joining**  
 Focuses on practical exercise in the safe and efficient use of the oxyacetylene flame for both cutting and joining applications. Covers flame cutting with hand and machine assists, welding, brazing, braze welding, hardfacing and soldering.

**WFT 122 (1) S**  
**Air Carbon Arc Cutting (CAC-A)**  
 Focuses on lab exercises in the popular and efficient carbon Arc Cutting with Compressed Air (CAC-A), also called "arccair," "gouging," or "scarfing." Prepare weld joints and efficiently disassemble existing fabricated structures. Prereq: Some experience with hand tools or permission.

**WFT 123 (2) S**  
**Use of Welding Symbols**  
 A progressive presentation of the scheme of welding symbols and their use in modern welding fabrication. Learn interpretation of welding symbols on blueprints. Prereq: WFT 105, ability to read blueprints, or permission.

**WFT 124 (5) S**  
**Gas Metal & Flux Core Arc Welding**  
 Learn equipment and theory of operation and applications of the popular Gas Metal & Flux Core Arc Welding (GMAW & FCAW) processes, also called "MIG," "Dual-shield," and "Innershield." Weld mild steel, aluminum and stainless steel in a variety of industrial applications. Prereq: Some experience with OAW ("gas welding") desirable or permission.

**WFT 125 (3) S**  
**Flame-Shaping as a Forming Method**  
 Study effects of heat upon welded fabrications, treating effects both as a problem for correction and as a tool used to form material. Learn and apply various methods to avoid and control distortion. Prereq: WFT 121 or permission.

**WFT 126 (3) S**  
**Punching & Shearing**

Set up and use the power shear and punch to make weldment parts in a fabrication setting. Explores alternative methods of cutting. Includes industry visits to learn numeric control and production cutting devices and systems. Prereq: WFT 101, 105 and 106 or permission.

**WFT 127 (5) S**  
**Gas Tungsten Arc Welding**

Learn equipment, theory of operation and applications of the Gas Tungsten Arc Welding (GTAW) process, also called "TIG" and "Heliarc," that are used in pressure piping systems, aerospace products and with heat-sensitive metals. Prereq: Experience with OAW ("gas welding") and at least one arc welding process or permission.

**WFT 128 (5) S**  
**Fabrication of Aluminum Weldments**

Learn to fabricate aluminum weldments, either new fabrications or maintenance operations. Prereq: Experience with at least one arc welding process to include GMAW or GTAW or permission. Recommended: Prior experience with steel fabrications.

**WFT 129 (5) S**  
**Weldment Inspection & Evaluation**

Covers the basics of welding inspection methods and criteria for determining compliance with defined standards. Presents systematic evaluation methods in the light of design purpose with the aim of distinguishing quality from acceptability. Reviews applications of the more popular welding processes. Prereq: Experience with at least one arc welding process to include GMAW or GTAW, ability to lift 50 lbs., or permission.

**WFT 130 (3) S**  
**Welding Certifications**

Explore the nature and purpose of welding performance certifications and examine popular certifications and tests. Study standards for performance that ensure consistent product quality. Develop proper performance techniques. Prereq: 4th-quarter standing or permission.

**WFT 131 (3) S**  
**Material Handling**

Examines safe and efficient methods for handling, transporting and tracking materials, supplies and structures found in a welding fabrication shop. Includes using rigging devices, leverage and cranes. Covers methods of protective transport. Prereq: WFT 100, 101 or permission.

**WFT 132 (5) S**  
**Maintenance & Repair Welding Techniques**

Explores welding fabrication techniques used to maintain and repair structures that are worn, damaged, or have missing parts. Presents identification and recognition of individual metal properties. Prereq: Knowledge of hand & power tools; experience with blueprint reading; OAC, OAW, TB, SMAW and CAC-A; ability to lift 50 lbs.; or permission.

**WFT 133 (5) S**  
**Salvage & Reconstruction of Weldments**

Recommended sequel to WFT 132. Covers methods and techniques for the safe and efficient disassembly of welded fabrications and other mechanical structures. Emphasizes determining the causes for material failure as an essential part of repair. Prereq: WFT 132; knowledge of hand and power tools; blueprint reading experience; OAC, OAW, TB, SMAW, GMAW, FCAW & CAC-A; ability to lift 50 lbs.; or permission.

**WFT 134 (5) S**  
**Use of Heat Treat**

Sequel to WFT 132. Examines the uses of heat in fabrication for other than parts joining. Presents common heat treat operations and their applications, which can enhance the usefulness and reliability of weld fabrications. Requires industry visits. Prereq: WFT 132; knowledge of hand and power tools; OAC, OAW, SMAW, GMAW, FCAW & CAC-A; ability to lift 50 lbs.; or permission.

**WFT 135 (4) S**  
**Submerged Arc Welding**

Learn Submerged Arc Welding (SAW) equipment, principles of operation, welding techniques and applications. Totally different from underwater welding, "sub arc" is a wire-feed arc welding process in which the arc is submerged beneath a blanket of granular flux which acts as a cleaning agent. Includes individual industry site visits. Prereq: Experience with arc welding processes, especially GMAW and/or FCAW; ability to lift 50 lbs.; or permission.

**WFT 136 (4) S**  
**Plasma Arc Welding**

Learn the equipment, principles of operation and techniques to perform Plasma Arc Welding (PAW). PAW is a developmental outgrowth of Gas Tungsten Arc Welding (GTAW) with limited, but important applications. Prereq: Experience with and a firm understanding of arc welding processes, especially GTAW; ability to lift 50 lbs.; or permission.

**WFT 137 (4) S**  
**Construction of Welding Location Jigs & Fixtures**

Incorporates the use of fabrication locating jigs and fixturing devices for welding, as well as for drilling, punching, forming and gauging dimensions for quality control. Covers jigs made from both standard fixtures and custom-built parts. Prereq: Blueprint reading; ability to perform basic layouts; experience with arc welding processes; ability to lift 50 lbs.; or permission.

**WFT 138 (2) S**  
**Advanced Fabrication of Weldments**

Gain experience with all major fabrication areas including design and development, estimating, layout, cutting, forming, fit up, tack welding and product assessment. Encourages fabrication of an approved project of the student's own design. Prereq: All the 100 WFT courses or permission.

**WFT 139 (3) S**  
**Employee Rights & Responsibilities**

Exploration of employee's rights and accompanying obligations in the welding fabrication workplace. Presents strategies to establish and maintain a time and effort commitment. Emphasizes record-keeping and marketing of fabrication skills with a frequently updated impact resume. Includes significant report writing. Prereq: WFT 100, 101, 109, 129, 130, 131 or permission.

**WFT 140 (6) S**  
**Industry Internship**

Provides on-the-job training with college coordination to assist in analyzing and categorizing particular experiences in light of the large field of welding fabrication. Develop confidence, technical and job-keeping skills. Includes significant report writing. Prereq: All 100 WFT courses, ability to lift 50 lbs. and permission.

**WFT 160 (9) S**  
**Aluminum Boat Building**

Participate in the fabrication of an aluminum boat or other approved projects. Includes both new construction of aluminum projects and maintenance and repair operations. Prereq: Prior experience with steel fabrication or wood construction recommended.

**WFT 180 (10) S**  
**Beginning & Intermediate Blacksmithing**

Intro and development in the field of decorative forged metal work. Includes tool-making, garden and household hardware and fixtures formed from steel, copper, bronze and various finishes.

**WFT 197 (6) S**  
**Industry Internship**

On-the-job training with college coordination to assist in analyzing and categorizing particular experiences in light of the large field of welding fabrication. Develop confidence, technical and job-keeping skills. Includes significant report writing.

**WFT 200 (1) S**  
**Aviation Maintenance Welding**

Overview of welding operations commonly used for aircraft maintenance and repair. Prereq: Enrollment in AMT program or permission.

**WFT 296 (3) S**  
**Employment Success Skills**

Identifies behaviors and characteristics that employees need on the job. Develop and gain confidence in communication and listening, teamwork and group interaction, problem-solving, decision-making and customer service.

**WFT 297 (2-12) S**  
**Special Topics in Welding Fabrication**

A special topics course for an individual or group in welding fabrication field. Prereq: Permission.

**WINE INDUSTRY**

*Students must be 21 to participate in wine-tasting.*

**WIN 101 (3) S**  
**Intro to Enology**

Intro to the science of winemaking, including history and geographical distribution; grape varieties and wine types; influence of climate and soil; wine fermentation, handling, storage and bottling methods; wine disorders; winery sanitation; and legal compliance. Lab fee.

**WIN 102 (3) S**  
**Enology Laboratory Analysis**

Intro to vineyard and winery laboratory practices including basic chemistry principles, laboratory techniques and commonly used analysis methods for musts and wines. Lab fee. Prereq: Intro to Chemistry, WIN 101 or permission.

**WIN 103 (4) S**  
**Elements of Wine Production**

Intro to production of wines including considerations that take place during the harvesting of grapes, transportation, stemming and crushing. May include field trip. Oriented for the beginning student. Lab fee. Prereq: WIN 101 and permission. Coreq: WIN 102 and 107.

**WIN 104 (4) S**  
**Elements of Wine Production II**

Intermediate course in winemaking. Emphasizes theories and practices of various fermentation processes, racking, topping and preservation methods. Lab fee. Prereq: WIN 101, 102, 103, 107. Coreq: WIN 108.

**WIN 105 (4) S**  
**Elements of Wine Production III**

Advanced course in winemaking. Emphasizes the final stages of wine production including the philosophy of usage and maintenance of barrels, elements of mixing wine varietals and the final stages of finishing wine production. Lab fee. Prereq: WIN 101, 102, 103, 104, 107. Coreq: WIN 109.

**WIN 107 (1) S**  
**Winery Production I**

Practical application of theories and principles from WIN 108. Lab fee. Prereq: WIN 101 or permission. Coreq: WIN 103.

**WIN 108 (1) S**  
**Winery Production II**

Practical application of theories and principles from WIN 104. Lab fee. Prereq: WIN 103, 107 or permission. Coreq: WIN 105.

**WIN 109 (1) S**  
**Winery Production III**

Advanced studies in winemaking. Practical application of the theories and principles of WIN 105. Lab fee. Prereq: WIN 121, 104, 108 or permission. Coreq: WIN 105.

**WIN 121 (3) S**  
**Intro to Viticulture**

Intro to the theory of grape growing including botany, anatomy, history, distribution, propagation, varieties, wine type, climate, production practices, and common diseases and pests.

**WIN 122 (3) S**  
**Wine Chemistry & Microbiology**

Covers wine chemistry and microbiology including wine acidity, sulfur dioxide, protein and phenolic equilibria and other concerns. Learn to make informed decisions on style, crush options, cellar practices, fining, stabilization and quality assurance. Prereq: Intro to Chemistry, WIN 101, 102 or permission.

**WIN 123 (3) S**  
**Sensory Evaluation**

Intro to wine sensory evaluation methods including statistical analysis of trials, philosophy of wine styles and the common evaluation methods used in sensory testing. Lab fee. Prereq: WIN 101 and 121.

**WIN 131 (4) S**  
**Intro to Washington Wines**

Intro to wines produced in Washington, including history, viticulture practices and winemaking styles. Includes sensory evaluation of representative Washington wines. Lab fee.

**WIN 132 (3) S**  
**Wine History & Appreciation**

A survey of wine and its role in history, religion, art, culture and society from pre-history to now. Includes sensory evaluation of representative wines. Lab fee.

**WIN 133 (5) S**  
**Intro to Wines of the World**

Intro to the world's wine-producing regions, including history, viticulture practices and winemaking styles. Includes sensory evaluation of representative wines. Lab fee.

**WIN 141 (3) S**  
**Wine Marketing & Sales**

Intro to wine marketing and sales methods, basic approaches to packaging, advertising, promotion, retail and wholesale selling of wine. Prereq: Intro to Business, Intro to Marketing or permission.

**WIN 151 (2) S**  
**Intro to Food & Wine Pairing**

Learn the basic elements of the character and key components of wines. Includes the four primary taste sensations present in everyday food (salty, sweet, bitter and savory) and how these affect the taste of wine. Lab fee. Prereq: WIN 101.

**WIN 152 (3) S****Advanced Food & Wine Pairing**

Continuation of WIN 151. Evaluate the character and key components of wines. Covers the different philosophies of classes and traditional pairs and opens the books on a new and emerging partnership between food and wine. Lab fee. Prereq: WIN 151.

**WIN 153 – 157 (4 EA.) S****Food & Wine Pairing Series**

Intro to the philosophies and techniques involved in bringing food and wine together in a cohesive pairing. Each class focuses on a specific group of wines. Participate in team demonstrations of food and wine pairings. Lab fee.

**WIN 153 (4) S****Food & Wine Pairing – Varietals I**

Focuses on Cabernet Sauvignon, Merlot, Pinot Noir, Chardonnay and Sauvignon Blanc. Prereq: WIN 101, 151, 152 (or concurrent enrollment) or permission.

**WIN 154 (4) S****Food & Wine Pairing – Varietals II**

Focuses on Zinfandel, Rhone style Syrah, Viognier, Pinot Grigio and others. Prereq: WIN 101, 151, 152 (or concurrent enrollment) or permission.

**WIN 155 (4) S****Food & Wine Pairing – Varietals III**

Focuses on Italian reds and whites, Rieslings and/or other specific varietals. Prereq: WIN 153 or 154 or permission.

**WIN 156 (2) S****Food & Wine Pairing – Fortified Wines**

Focuses on Sherry, Port, Madeira, Marsala and others. Prereq: WIN 153 or 154 or permission.

**WIN 157 (2) S****Food & Wine Pairing – Desserts**

Focuses on dessert wines: sweet wines, sparkling wines, red varietals and others. Prereq: WIN 153 or 154 or permission.

**WIN 197 (1-5) S****Wine Industry Internship**

Links classroom experience and on-the-job experience and reinforces and documents these experiences. Prereq: 2.5 GPA in WIN 101, 102, 103, 104, 105, 107, 108, 109, 122, 123, & 133.

**WOMEN STUDIES****WMN 140 (5) N****Women in American History**

Focuses on the role of women in American history, with emphasis on frontier women, the industrial revolution, women's rights movements and the new feminism.

**WMN 200 (5) N****Intro to Women Studies: Issues of Gender, Race & Class in Contemporary Women's Lives**

Interdisciplinary, multicultural intro to Women Studies focusing on the way gender, race, class, sexuality and culture have shaped women's lives. Examines why women occupy similar and different locations in the United States and international cultures. Reading includes both narrative and analytical approaches.

**WMN 205 (5) C,N,S****Women in the Global Context**

Interdisciplinary intro to the study of women in Asia, Africa, Latin America, the Middle East and/or indigenous women in some Western societies. Explores commonalities and differences among women in various societies and cultures. Focuses on women from specific societies or regions varying by instructor.

**WMN 213 (5) N****Women & Politics**

Intro to concepts of power and policy issues as they relate to women. Covers theoretical, historical and empirical studies of women's participation in social and political movements nationally and internationally. Includes women's diverse roles in relation to family, economics, labor, government and law.

**WMN 257 (5) N****Psychology of Gender**

Explores major psychological theories of sex differences. Examines studies of sex-role development and biological and environmental influences that may determine and maintain sex differences in aggression, cognitive abilities, achievement, motivation, affiliation and sexuality. May be taken as PSYC 257.

**WMN 298 (1-5) N****Special Topics in Women Studies**

Independent research and writing on selected women studies topics under faculty supervision.

**WOOD CONSTRUCTION****WCO 110 (18) C****Intro to Professional Woodworking**

Intro to wood construction skills and safety, including safe operation of basic hand and power tools, wood construction terminology and materials.

**WCO 120 (1) C****Construction & Maritime First Aid**

11-hour course to certify students in First Aid and CPR as required by Washington State Department of Labor and Industries WAC 296-24.

**WCO 130 (18 PER QTR) C****Marine Carpentry**

Covers employable skills in the boatbuilding trade. Includes instruction in fiberglass, wood construction and repair. Prereq: WCO 110.

**WCO 140 (18 PER QTR) C****Carpentry**

Four quarters of work dealing with residential construction and remodeling, including technical knowledge and hands-on experience. Prereq: WCO 110.

**WCO 141 (18 PER QTR) C****Residential Remodeling**

Covers specific techniques in residential remodeling including bathrooms and kitchens, stairs, scaffolding design and construction, sheetrock demolition, installation and repair and siding application.

**WCO 150 (18 PER QTR) C****Cabinetmaking & Fine Woodworking**

Covers cabinetmaking and millworking, including technical instruction and shop experience. Includes precision work and production of fine furnishings. Prereq: WCO 110.

**WCO 160 (3) C****Architectural Blueprint Reading & Cost Estimating for the Building Trades**

Focuses on how to read and apply information gained from blueprints for cost-estimating and developing cutting lists.

**WCO 164 (2) C****Roof Framing & Stair-Building**

Develop and upgrade efficiency in stair- and roof-building with new techniques and skills.

**WCO 166 (3) C****Furniture Design & Construction**

Survey of furniture design trends in traditional and modern furniture.



**WCO 167 (4) C**

**Fine Furniture**

For students with solid cabinetmaking skills who are interested in learning techniques suited to making gallery-level fine furniture.

**WCO 170 (3) C**

**Boat Lofting**

Fundamental course in the development of lofting and fairbody. Covers the relationship of buttocklines, waterlines, sections and diagonals and how to interpret the lines and offsets for fairbody development.

**WCO 180 (1) C**

**Use & Application of the Hand Router**

Intro to the types and uses of the hand router. Includes basic operations, selection of router bits and an intro to jigs and templates.

**WCO 181 (2) C**

**Advanced Router Technique Jig & Template Use**

Covers construction of specialty jigs and templates for the hand router, including exploration and explanation of multiple uses and applications.

**WCO 197 (2-15) C**

**Work Experience – Wood Construction**

Earn work experience credit in the wood construction field. Prereq: Permission.

**WCO 299 (3-18) C**

**Special Projects in Boatbuilding**

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## WORLD LANGUAGES

*See Languages & Literature, page 242.*