

**Course Descriptions • Section 5****Career Education Programs**

<b>Department</b>	<b>Program</b>	<b>Course</b>	<b>Description</b>	<b>Credits</b>
Accounting	ACCT	ACCT&201	An introduction to the concepts and methods underlying the preparation of corporate financial statements using generally accepted accounting principles. Topics covered include the accounting cycle, cash, and receivables.	5
Accounting	ACCT	ACCT&202	A continuation of the concepts and methods underlying the preparation of corporate financial statements using generally accepted accounting principles. Topics covered include long-term assets, liabilities, stockholders' equity, statement of cash flows and financial statement analysis	5
Accounting	ACCT	ACCT&203	An introduction to the concepts and methods of managerial accounting and how accounting information is essential for management decisions. Topics covered include job costing, activity based costing, inventory management, cost - volume - profit relationships, budgets, short-term business decisions and capital investment decisions	5
Accounting	ACCT	ACCT205	This course focuses on how to use Excel to create accounting models which focus on solving accounting problems and completing accounting projects. Learn practical application for concepts emphasized in financial accounting and managerial accounting	5
Accounting	ACCT	ACCT207	This course provides hands-on experience and practice in computerized accounting applications (QuickBooks) for small businesses. Use the general ledger, accounts payable, accounts receivable, inventory, invoicing and payroll modules	5
Accounting	ACCT	ACCT220	This course provides hands-on experience and practice in computerized accounting applications (QuickBooks) for small businesses. Use the general ledger, accounts payable, accounts receivable, inventory, invoicing and payroll modules	5
Accounting	ACCT	ACCT225	An introduction to federal income tax for individuals including current tax law, preparation of individual income tax form 1040 and related schedules	5
Accounting	ACCT	ACCT230	An introduction to the accounting and reporting requirements for governmental and non-profit entities. Covers the essentials of fund accounting and applies techniques to transactions in governmental units including governmental fund types, proprietary fund types, and fiduciary fund types	5

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Accounting	ACCT	ACCT235	This course provides an in-depth study of financial accounting theory and practice. Primary focus is on financial statement preparation for small to medium-sized domestic companies. Topics include revenue recognition and income determination, financial statement preparation and account reconciliation and analysis.	5
Accounting	ACCT	BUS&101	Dynamics and competitive business world are explored through the study of topics including economic systems, forms of business ownership, social responsibility and ethics, entrepreneurship, marketing, management, organizational design, finance, banking and securities markets	5
Accounting	ACCT	BUS&201	An introduction to the American legal system and the functions of law in a business environment; legal reasoning and the process of resolving disputes in society; a preliminary analysis of contractual arrangements and business association in the business community	5
Accounting	ACCT	BUS102	This course focuses on business communication, students apply the principles of ethical and effective communication to the creation of letters, memos, e-mails, and written and oral reports for a variety of business situations. Planning, organizing, composing, and revising business documents using word processing software for written documents and presentation-graphics software to create and deliver professional-level oral reports are emphasized. This course is designed for students who already have college-level writing skills and the ability to type is recommended	5
Accounting	ACCT	ECON&201	This course focuses on the theory of the market systems as a method of allocating resources and distributing income and products. Analysis of current problems including government regulation, subsidies, monopoly and taxation	5
Accounting	ACCT	INFO101	Demonstrate essential skills using core Microsoft Office applications. Create and edit documents using word processing, spreadsheet, presentation, database, email, or other business applications.	5
Administrative Medical Assistant	AMA	AMA110	This course will provide the basic vocabulary and terminology related to computer and word processing applications. An introduction to computer hardware and software is provided. This course will help build confidence and skills in using computer technology.	1

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Administrative Medical Assistant	AMA	AMA111	This course is an introduction to the basic concepts of MS Word. The components that will be covered are document creation, editing and saving, formatting text and paragraphs, working with tables, etc. as related to healthcare.	3
Administrative Medical Assistant	AMA	AMA112	This course is an introduction to the first of a series of medical terminology courses associated with anatomy/physiology and the understanding of the disease process. Students use basic prefixes, suffixes, combining forms, and medical abbreviations.	4
Administrative Medical Assistant	AMA	AMA113	This course focuses on the growing emphasis on customer service, the patient experience, cultural competence, quality improvement, patient safety, and corporate compliance that healthcare professionals deal with every day. Emphasis is placed on communicating appropriately, working well in teams, respecting and valuing differences, using limited resources efficiently, and interacting effectively with coworkers, patients, and guests.	5
Administrative Medical Assistant	AMA	AMA114	This course is an introduction to the basic concepts of the administrative medical assistant profession with emphasis on professional behaviors as they relate to the patient-physician-medical assistant relationship.	5
Administrative Medical Assistant	AMA	AMA115	The course is an introduction to the processes used to transcribe a variety of medical correspondence and reports with emphasis on the development of proofreading and editing skills. Digital media is introduced.	3
Administrative Medical Assistant	AMA	AMA116	This is a practical applications course that focuses on a variety of administrative medical tasks to include appointment scheduling, internet research, referral processes for treatment, and records management. Students are introduced to a medical office simulation project.	3
Administrative Medical Assistant	AMA	AMA117	This course is an introduction to medical terminology with an emphasis on the Integumentary, Digestive, Respiratory, and Cardiovascular Systems. Prerequisite required: AMA 112	4

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Administrative Medical Assistant	AMA	AMA118	This course focuses on the Administrative Medical office functions. Communication regarding patient appointments will be focused upon. Students will be introduced to proper telephone techniques, a variety of filing systems in the medical office, understanding how equipment and supplies are essential the office, and will learn the basic concepts of performing front-office reception duties in the medical office. Prerequisite: AMA 114.	4
Administrative Medical Assistant	AMA	AMA119	This is an advanced practical applications course that focuses on a variety of administrative medical tasks. Students will continue their simulation project and will include designing a medical office waiting area as well as performing medical practice financials.	3
Administrative Medical Assistant	AMA	AMA120	This course is an introduction to the basic concepts of MS Excel. Students will be performing basic calculations using formulas, formatting and printing worksheets, and creating powerful charts and graphs for the healthcare industry.	3
Administrative Medical Assistant	AMA	AMA121	This is a continuance course focusing on medical terminology with an emphasis on the Blood, Lymph and Immune Systems; Musculoskeletal System, Urinary System, and Female Reproductive System. Prerequisite required: AMA 117	4
Administrative Medical Assistant	AMA	AMA122	This course is an introduction to administrative skills related to schedule management, insurance billing, coding, collections, and the financial management of a medical practice. Prerequisites: Successful completion of AMA 114 and AMA 118.	4
Administrative Medical Assistant	AMA	AMA123	This course introduces the concepts and history of Electronic Health Record software, including meaningful use. The students will be oriented in a hands-on EHR simulation utilizing SpringCharts software. Emphasis will be placed on the basic patient's chart to labs, tests, codes, and templates. Students will apply all aspects utilizing EHR computer software	4
Administrative Medical Assistant	AMA	AMA124	This course will fulfill the requirements for students to achieve their 2-year First Aid/CPR card required by the healthcare industry.	1

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Administrative Medical Assistant	AMA	AMA125	This course offers students an opportunity learn to use a medical practice management system (PMS) and practice a variety of practice management functions common to a healthcare facility. Students will practice with hands-on software in scheduling, billing, account balancing, and financial report analysis.	2
Administrative Medical Assistant	AMA	AMA126	This course is an introduction to administrative skills related to schedule management, insurance billing, coding, collections, and the financial management of a medical practice.	4
Administrative Medical Assistant	AMA	AMA127	This course focuses on medical insurance terminology and processes for billing a variety of insurance types. They learn specifics of Medicaid, Medicare, TriCare, L&I, and commercial insurance and analyze agency payment vouchers. Secondary insurance billing requirements, rebilling, and electronic billing are included.	4
Administrative Medical Assistant	AMA	AMA128	This is an advanced medical terminology course with an emphasis on the Male Reproductive System, Endocrine System, Nervous System, and Special Senses. Prerequisite required: Successful completion of AMA112, AMA 117, and AMA121.	4
Administrative Medical Assistant	AMA	AMA129	This course is an introduction to coding of diagnoses and procedures of health care records with emphasis on coding for insurance reimbursement. Students learn to use both CPT and ICD-9-CM/ICD-10-CM classification manuals and reference materials. Prerequisite required: Successful completion of AMA 112, AMA 117, AMA 121, and AMA 128.	4
Administrative Medical Assistant	AMA	AMA130	This course will focus on developing practical skills in managing people and issues of supervision. Components will consist of building effective work teams, communication skills for supervisors, conflict resolution, managing change, and supervision principles in the healthcare setting.	3
Administrative Medical Assistant	AMA	AMA131	This course focuses on the interview techniques. Students will discuss different types of interview formats, brainstorm interview questions and answers, participate in mock interviews, and learn how to handle unexpected interview situations.	3

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Administrative Medical Assistant	AMA	AMA132	This course provides instruction on how to be successful in collecting blood samples. The student will learn how to collect blood samples using all of the tools currently being used in the Laboratory industry. Collection of blood samples will be from fellow students as well as allowing blood to be drawn from students. Processing samples for analysis will be part of the curriculum. Students will learn how to deal with age specific needs of patients, customer service, special collections, and non-blood samples.	3
Administrative Medical Assistant	AMA	AMA133	This course meets Washington State Department of Health objectives for the 4- and 7-hour HIV/Bloodborne Pathogens education requirement for credentialed healthcare providers and non-credentialed healthcare facility employees.	1
Administrative Medical Assistant	AMA	AMA134	This course is an introduction to the necessary components of healthcare credentialing. State, Federal, and administrative requirements are addressed.	2
Administrative Medical Assistant	AMA	AMA135	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The projects focus is on prior course work.	3
Administrative Medical Assistant	AMA	AMA296	Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.	2
Administrative Medical Assistant	AMA	AMA297	Students enroll in the work-based learning seminar in order to receive an orientation to the work-based learning experience. Faculty meets with the students to provide support and assistance during the experience.	1
Administrative Office Assistant	AOA	ACCT&201	An introduction to the concepts and methods underlying the preparation of corporate financial statements using generally accepted accounting principles. Topics covered include the accounting cycle, cash, and receivables.	5
Administrative Office Assistant	AOA	ACCT207	This course provides hands-on experience and practice in computerized accounting applications (QuickBooks) for small businesses. Use the general ledger, accounts payable, accounts receivable, inventory, invoicing and payroll modules	5

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Administrative Office Assistant	AOA	AOA102	This course is an introduction to duties and responsibilities found within the office administrative professions including the investigation of career paths, the development of career goals, and the exploration of customer service philosophies.	5
Administrative Office Assistant	AOA	AOA103	This course focuses on customer service, arrangement of business travel, operation of multi-line phone systems and facsimile equipment are introduced.	1
Administrative Office Assistant	AOA	AOA105	This course is an introduction to basic typewriting and computer keypad data entry skills.	5
Administrative Office Assistant	AOA	AOA106	This course is an introduction to MS Windows where students learn to Identify computer system components, use Windows software, and manage digital files.	1
Administrative Office Assistant	AOA	AOA108	In this course students perform records management activities at the level required within the administrative office assistant industry.	4
Administrative Office Assistant	AOA	AOA109	This course focuses on the concept of ethics and its role in business are presented with emphasis on the examination of ethical situations and the creation of steps to solve the issue.	2
Administrative Office Assistant	AOA	AOA110	This course is an introduction to basic word processing skills using MS Word.	5
Administrative Office Assistant	AOA	AOA111	This course is an introduction on how to manage calendars and utilize basic and advanced features of email systems.	2
Administrative Office Assistant	AOA	AOA112	This course is an introduction to basic grammar including parts of speech and writing grammatically correct sentences	1
Administrative Office Assistant	AOA	AOA120	In this course students continue to enhance typewriting/keyboarding and keypad data entry skills and increase their keyboarding speed and accuracy	5
Administrative Office Assistant	AOA	AOA121	This course is a continuation of the concepts introduced in AOA 110; students develop more advanced word processing skills	5
Administrative Office Assistant	AOA	AOA123	In this course students develop written communication skills required within the business and office environment	5
Administrative Office Assistant	AOA	AOA124	In this course students practice business meeting structure, conduct and protocols, with emphasis on meeting facilitators responsibilities	3

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Administrative Office Assistant	AOA	AOA126	This course is an introduction to basic grammar including parts of speech and writing grammatically correct sentences	1
Administrative Office Assistant	AOA	AOA132	This course is an introduction to basic grammar including parts of speech and writing grammatically correct sentences	1
Administrative Office Assistant	AOA	AOA202	This course is an introduction to basic grammar including parts of speech and writing grammatically correct sentences	1
Administrative Office Assistant	AOA	AOA203	In this course, students create, edit, maintain, and print spreadsheets and data sheets and create and edit macros.	5
Administrative Office Assistant	AOA	AOA204	This course is an introduction to presentation software that is used to create computer-based slide shows.	3
Administrative Office Assistant	AOA	AOA205	This course is an introduction to Microsoft Access with emphasis on the acquisition of database maintenance skills	3
Administrative Office Assistant	AOA	AOA207	This course is an introduction to basic grammar including parts of speech and writing grammatically correct sentences.	1
Administrative Office Assistant	AOA	AOA217	This course is an introduction to basic grammar including parts of speech and writing grammatically correct sentences.	1
Administrative Office Assistant	AOA	AOA223	This course students will apply advanced functions such as graphing, working with multiple spreadsheets, and formatting and printing spreadsheets and data sheets.	5
Administrative Office Assistant	AOA	AOA234	In this course students conduct job search techniques, resume writing, and receive assistance in developing career goals and educational plans.	1
Administrative Office Assistant	AOA	AOA240	This course offers students an opportunity to work on a lab-based project creating a variety of documents using the computer and grammar skills learned throughout the program.	2
Administrative Office Assistant	AOA	AOA291	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	2
Administrative Office Assistant	AOA	AOA296	Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.	1

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Administrative Office Assistant	AOA	AOA297	This course is the work-based learning seminar in order to receive an orientation to the work-based learning experience. Faculty meets with the students to provide support and assistance during the experience.	1
Administrative Office Assistant	AOA	AOA298	Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.	2
Allied Health Academy	AHA	AHA090	This is an introduction to basic components of careers in the healthcare industry.	1
Allied Health Academy	AHA	AHA091	This course will focus upon the role that ethics plays in the healthcare professions. The class will meet once each week to discuss how ethics influences healthcare workers' decision-making process. In addition to in-class activities, students will need to complete coursework and take three in-class quizzes.	1
Allied Health Academy	AHA	AHA092	This is an introductory course taking an elementary look into the human body, established to explore design and inter-functionality of various body systems.	3
Allied Health Academy	AHA	AHA093	This is an introductory course that focuses on the role of customer service in the healthcare industry.	1
Allied Health Academy	AHA	AHA094	This course discusses signs and symptoms of mental health issues and how to help someone who is developing a mental health problem or experiencing a mental health crisis. Role play, interactive case studies and discussion will help students identify, understand, and respond to signs of mental illnesses and substance use disorders	2
Allied Health Academy	AHA	AHA095	This introductory course provides students with an introduction to the basics of phlebotomy on models. HIPAA Privacy Rule will be reinforced from previous NAC course.	3
Allied Health Academy	AHA	AHA096	This introductory course provides students with an introduction to the basics of procedural and diagnostic coding and how they apply to medical billing in an outpatient setting. Students will also be introduced to the HIPAA Privacy Rule.	1

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Allied Health Academy	AHA	AHA097	In this course, students will be introduced to major concepts in pharmacology and drug therapies, including drug actions and reactions in the human body. Student will be able to recognize 5 major drug classes and explain the most common uses for those drug classes.	3
Allied Health Academy	AHA	AHA098	In this course, students explore personal values and cultural attitudes to enhance their therapeutic communication when working with a variety of populations in health care. One's perceptions, insights, judgements and the awareness of beliefs are integral in the process of communicating to and in establishing a therapeutic relationships with those we serve in health care. Group roles, learning styles, leadership, and communication styles will be examined in a variety of ways. Students develop basic skills for observation, interviewing, communicating with their cohort in order to enhance their skills when they become health care professionals.	3
Allied Health Academy	AHA	AHA099	Under Development-New Course will begin B901	1
Allied Health Academy	AHA	CTNA102	In this DOH approved course, the emphasis is on safety. Students learn patient care techniques, measures of well-being and how to work as part of a healthcare team. Students are tested on their understanding of skills and safety by written examination and skill demonstrations before their clinical experience with geriatric population clients.	7
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC101	This course is an introduction to the basic fundamentals of the cabinetmaking trade including sources and products of cabinetmaking and different occupational opportunities	3
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC102	This course is an introduction to the required safety and shop rules to be applied in the lab as well as the OSHA and WISHA rules and regulations that help maintain a safe and productive work environment	4
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC103	An introduction to the fundamental skills of shop drawings and detail plans, students read and interpret plans including material and cabinet take-offs. Basic sketching is also introduced	4

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Architectural Woodworking/ abinet Making Technology	ARWC	ARWC104	This course is an introduction to the materials used in the cabinetmaking trade including both natural-made and man-made materials: MDF, particle board, laminates, veneers, solid surfaces, and sustainable sourced woods	2
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC105	This course is an introduction to the proper use, maintenance, and application of basic machines used for the building of cabinets and woodworking projects. Basic machines may include the jointer, planer; radial arm saw, wide belt sander, table saw, vertical panel saw, line boring machine, motorized miter saw, and drill presses	4
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC106	This course is a continuation of the concepts introduced in ARWC 105; students demonstrate the proper use of maintenance and the application of complex machine tools used for the building of cabinets and woodworking projects. Advanced machines may include edge banders, sliding table/table saw, spindle shapers, panel raising attachment, panel router, Euro hinge machines similar to Blum Mini press, and the hollow chisel mortise	4
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC107	This course is an introduction to the proper use, maintenance, and application of CNC machining used for the cutting/milling of cabinets, woodworking parts, templates, and projects. The use of basic layouts on the computer and software used for this application is emphasized	3
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC108	This course is an introduction to the proper use, maintenance, and application of portable power tools, such as common tool use and care of routers and bits, the different types of routers and their application, biscuit cutter, pocket hole jigs, drills and drivers, various joint-making tools, and set-up	3
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC109	This course is an introduction to the proper use, maintenance, and application of hand tools used for the cutting/milling, assembly, and installation of cabinets. , woodworking parts, templates, and projects. Common hands tools include the block plane; measuring and marking tools; and cutting tools such as dovetail saws, back saws, and Japanese saws	3

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Architectural Woodworking/ abinet Making Technology	ARWC	ARWC110	Students demonstrate the proper use and application of joints used in the assembly and production of cabinets. Emphasis is on function, strength, ease of machining, and basic uses of various joints. Also introduced is the application and suitability to different materials and production settings	4
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC111	This course is an introduction to the maintenance and sharpening of tools used in the shop. Routine maintenance will be covered as well as some minor tool repair and adjustments. Students use assigned/instructor approved projects to replace knives, adjust cutting performance, and maintain machines	3
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC112	In this course students cut, assemble, and complete traditional face frame cabinets. In addition, the design, layout, and proper material use are introduced, as well as carcass assembly, face frames, door and drawer construction	4
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC113	This course is a continuation of the concepts introduced in ARWC 112; students cut, assemble, and complete traditional face frame cabinets. Design, layout, and proper material use are introduced as well as carcass assembly, face frames and door and drawer construction. Students are assigned instructor- approved projects to develop more advanced knowledge and skills	4
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC114	Students acquire knowledge and skills in the use and application of the 32mm cabinet system. This includes the construction methods, materials, hardware, and assembly of frameless cabinets	3
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC115	Students are introduced to the use and application of finishes used in a shop setting including a variety of techniques: wipe-on, spray, and brushing	3
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC116	Students assemble doors and drawers and design and manufacture different door/drawer styles to assigned/personal projects.	2
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC117	Students are introduced to the fabrication and assembly methods of various countertop materials including plastic laminates and solid surface materials	3

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Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC118	This course is an introduction to mathematical computations as they related to the architectural woodworking/cabinetry industry. Applied skills include material estimation and board, square, and linear footage calculations	3
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC119	This course is an introduction to the use of jigs, templates, and fixture for doing machining processes when more than one part is required to be identical or parts need to be held for machining. Skills taught include material selection, measurements, proper tooling, and ease of use. Work is on shop projects and simulated mock-ups	2
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC120	Students assemble commercial casework including assembly methods, construction standards, and materials	3
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC201	Students apply wood bending/laminating techniques including vacuum bagging and lamination bending. Types of forms, construction of forms, adhesives, and best materials for bending are included	3
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC202	Students practice architectural millwork fabrication and design methods using projects and mockups. Molding selection, machining, material selection, and cutting are also included	3
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC203	In this course furniture design, styles, and assembly methods are taught	5
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC204	Students install residential and commercial cabinets and fixtures. Layout, leveling, and fastening methods are also taught	4
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC205	The selection and proper use of tools and materials in the creation of advanced joinery are emphasized	4
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC206	This course is an introduction to the use of different industry software for design, layout, and manufacture of cabinets	4

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Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC207	In this course students use a variety of methods of applying, fitting, and trimming veneers	2
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC208	Students practice job search techniques, resume writing, and receive assistance in developing career goals and educational plans	3
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC209	With instructor approval, students select and complete an advanced project	5
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC291	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	13
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC292	The Independent Project I course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC293	The Independent Project II course offers students further opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Architectural Woodworking/Cabinet Making Technology	ARWC	ARWC294	The independent project III course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5

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Architectural Woodworking/ abinet Making Technology	ARWC	ARWC296	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Architectural Woodworking/ abinet Making Technology	ARWC	ARWC297	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Autobody Rebuilidng and Refinishing	AUTOB	AUTOB101	This course is an introduction to mathematical theory and its application to the automotive refinishing industry. Topics include an overview of general mathematical concepts and how they are successfully utilized in practical situations	3
Autobody Rebuilidng and Refinishing	AUTOB	AUTOB102	This course is an introduction to the safety practices and procedures common to the automotive refinishing industry	3
Autobody Rebuilidng and Refinishing	AUTOB	AUTOB103	Students are introduced to the various types of automotive materials, finishes and the equipment used in their application. Emphasis is placed on identification of a variety of repair and refinishing materials, types of equipment, and proper safety precautions	3
Autobody Rebuilidng and Refinishing	AUTOB	AUTOB104	Students identify materials used in minor body repair and how to use them to fill/smooth depressed areas in sheet metal. The removal and installation of bolt-on panels are also included	5
Autobody Rebuilidng and Refinishing	AUTOB	AUTOB105	Students apply the basic theory of major panel replacement and alignment/replacement methods, including welding. They are also introduced to automobile body construction types and their common mechanical components: energy absorbers, suspension and steering systems and CV joints	5

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Autobody Rebuildng and Refinishing	AUTOB	AUTOB106	This course includes practical applications in the adjustment/alignment of bolt-on sheet metal doors, hoods, fenders, and trunk lids	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB107	Students align a variety of bumpers including impact-absorbing, fixed mounted and metal reinforced	3
Autobody Rebuildng and Refinishing	AUTOB	AUTOB108	Students will align various types of headlamps in automobiles	1
Autobody Rebuildng and Refinishing	AUTOB	AUTOB109	Students will replace trim molding, hardware, locks and latches and repair/replace window adjustment mechanisms and restraint devices	3
Autobody Rebuildng and Refinishing	AUTOB	AUTOB110	Students install mechanical and power window mechanisms	4
Autobody Rebuildng and Refinishing	AUTOB	AUTOB111	Basic principles of interior and exterior surface preparation are introduced. Students analyze the components of primers, undercoats, and topcoats	2
Autobody Rebuildng and Refinishing	AUTOB	AUTOB112	This course introduces students to methods of surface preparation for automotive refinishing. Topics include sanding techniques, metal treatment, selection and use of undercoats, and proper masking procedures	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB113	A continuation of the concepts introduced in AUTOB 111 and 112, students continue to apply advanced surface preparation techniques to restore cars to factory standards after collision damage	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB201	Students are introduced to the basic principles of topcoat systems with emphasis on the types of automotive topcoat systems and their application procedures	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB202	A continuation of the concepts introduced in AUTOB 201, students apply a variety of automotive topcoats including single-stage, basecoat/clearcoat, and tri-coat finishes. Buffing, compounding, and detailing of newly painted vehicles for delivery is also presented	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB203	This course provides instruction in automotive metal inert gas (MIG) and oxyacetylene welding with emphasis on safety, set-up and operation of welding equipment. Students successfully join automotive sheet metal using the MIG process	5

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Autobody Rebuildng and Refinishing	AUTOB	AUTOB204	Students implement the basic theory and application of major unibody and frame repair. Topics include methods of inspection, types of measuring equipment, and identifying types of structural damage	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB205	Students measure, align, and repair a unibody and body over frame vehicle	4
Autobody Rebuildng and Refinishing	AUTOB	AUTOB206	This course is an introduction to glass installation methods with emphasis on the removal and replacement of structural glass, non-structural glass, and auto trim. Cleanup of vehicle interior after breakage is also included	4
Autobody Rebuildng and Refinishing	AUTOB	AUTOB207	Students identify the various types of plastics, their characteristics and locations, and which procedures to follow while repairing or refinishing the various types of plastics	2
Autobody Rebuildng and Refinishing	AUTOB	AUTOB208	This course is a continuation of the concepts introduced in AUTOB 207. Students repair or refinish various plastic surfaces	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB209	Students are introduced to the basic principles of body shop management with emphasis on management structure, customer relations, and sound business practices	3
Autobody Rebuildng and Refinishing	AUTOB	AUTOB210	Students estimate collision damage, auto body repair, and finishing costs. Traditional and computer-assisted methods used for determining cost involved in labor, parts, and materials are emphasized	4
Autobody Rebuildng and Refinishing	AUTOB	AUTOB211	This course is an independent study in special projects to give students additional training in a specific area selected by the instructor. Emphasis is on individual student needs to improve or expand skills in a variety of areas	4
Autobody Rebuildng and Refinishing	AUTOB	AUTOB291	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	18
Autobody Rebuildng and Refinishing	AUTOB	AUTOB292	The independent project I course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5

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### Career Education Programs

Autobody Rebuildng and Refinishing	AUTOB	AUTOB293	The independent project II course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB294	The independent project III course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Autobody Rebuildng and Refinishing	AUTOB	AUTOB296	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Autobody Rebuildng and Refinishing	AUTOB	AUTOB297	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	2
Autobody Rebuildng and Refinishing	AUTOB	AUTOB298	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13

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### Career Education Programs

Autobody Rebuilding and Refinishing	AUTOB	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Automotive Technology	AUTOM	AUTOM101	This course is an introduction to internal combustion engine theory, configuration operation and diagnosis	4
Automotive Technology	AUTOM	AUTOM102	This course is an introduction to the operation and diagnosis of engine subassemblies such as valve trains, timing components and short blocks	4
Automotive Technology	AUTOM	AUTOM103	This course is an introduction to electrical theory including Ohm's Law, Series and Parallel Circuits and measuring devices	4
Automotive Technology	AUTOM	AUTOM105	This course is an introduction to automotive electrical applications such as charging systems and starting systems and problem diagnosis	3
Automotive Technology	AUTOM	AUTOM106	This course is a introduction to standard automotive shop safety procedures including handling and disposal of hazardous materials, the proper use of protective gear and equipment, and the operation of specialized automotive shop equipment. They also receive training in the use of a diagnostic meter for automotive electrical applications commonly used in the automotive industry.	1
Automotive Technology	AUTOM	AUTOM121	This course is an introduction to engine performance, diagnosis, and computer applications	5
Automotive Technology	AUTOM	AUTOM122	This course is an introduction to electronic and computer operated ignition systems including primary controls and secondary high voltage.	5
Automotive Technology	AUTOM	AUTOM123	This course is an introduction to electrical and mechanical fuel delivery systems and test equipment.	4
Automotive Technology	AUTOM	AUTOM124	This course is an introduction to EGR, evaporative and exhaust emission systems, their requirements and operation.	2
Automotive Technology	AUTOM	AUTOM125	This course is an introduction to electronic fuel injection, controls, and test equipment.	2
Automotive Technology	AUTOM	AUTOM130	This course is an introduction to lighting types, switches and controls. Instrumentation theory and applications are examined.	4
Automotive Technology	AUTOM	AUTOM131	This course is an introduction to gear trains and synchromesh transmission operation.	4
Automotive Technology	AUTOM	AUTOM132	This course is an introduction to automatic transmission principles, hydraulics and planetary gear sets.	4
Automotive Technology	AUTOM	AUTOM133	This course is an introduction to four wheel drive, transfer cases and differentials.	4

## Course Descriptions • Section 5

### Career Education Programs

Automotive Technology	AUTOM	AUTOM140	This course is an introduction to wheel alignment, rack and pinion steering, and suspension systems.	4
Automotive Technology	AUTOM	AUTOM141	This course is an introduction to hydraulics, system splitting and power brakes.	4
Automotive Technology	AUTOM	AUTOM142	This is an introduction course to brake types and application including anti-lock	4
Automotive Technology	AUTOM	AUTOM143	This course is an introduction to automatic and manual mobile HVAC systems. Principles of heat transfer and refrigerant are examined.	4
Automotive Technology	AUTOM	AUTOM201	In this advanced segment, detailed engine diagnosis and repair is performed. Crankshaft measuring, plastic gauge and piston rings are all examined.	5
Automotive Technology	AUTOM	AUTOM202	In this advanced course, engine subassemblies, cylinder heads, short blocks and timing components are repaired to current standards.	3
Automotive Technology	AUTOM	AUTOM203	In this advanced course, diagnostic testers and electrical troubleshooting are examined.	4
Automotive Technology	AUTOM	AUTOM204	In this advanced course, battery, starting, and charging systems are diagnosed and repaired.	4
Automotive Technology	AUTOM	AUTOM220	In this advanced course, computer and electronic ignition systems are diagnosed and repaired.	4
Automotive Technology	AUTOM	AUTOM221	In this advanced course, pressurized fuel delivery systems are diagnosed and repaired.	4
Automotive Technology	AUTOM	AUTOM222	In this advanced course, emissions are measured using modern test equipment and control systems adjusted and repaired.	3
Automotive Technology	AUTOM	AUTOM223	In this advanced course, fuel injection is examined, adjusted and repaired using modern test equipment and diagnostic procedures.	3
Automotive Technology	AUTOM	AUTOM230	In this advanced course, lights, wiring and instruments are examined, adjusted and repaired using modern test equipment and diagnostic procedures.	3
Automotive Technology	AUTOM	AUTOM231	In this advanced course, clutches and transmissions are examined and repaired using modern repair procedures.	5
Automotive Technology	AUTOM	AUTOM232	In this advanced course, automatic transmissions and transaxles are examined and repaired using modern repair procedures.	4
Automotive Technology	AUTOM	AUTOM233	In this advanced course, multi wheel drive systems are diagnosed and repaired using modern repair procedures.	4
Automotive Technology	AUTOM	AUTOM240	In this advanced course, steering and suspension systems are serviced and aligned using modern alignment equipment.	4
Automotive Technology	AUTOM	AUTOM241	In this advanced course, brake hydraulic systems are serviced using modern brake service equipment.	4

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### Career Education Programs

Automotive Technology	AUTOM	AUTOM242	In this advanced course, disc and drum brake systems are serviced and repaired using modern brake service equipment.	4
Automotive Technology	AUTOM	AUTOM243	In this advanced course, heating and air conditioning systems are service and repaired using modern AC service equipment.	3
Automotive Technology	AUTOM	AUTOM296	This course provides a work-based learning experience with an instructor-approved employer in the automobile repair and maintenance industry. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Barber	BARB	BARB110	This course provides an orientation to the basic science of barber-styling. Concepts of personal and professional aesthetics and future roles within the aesthetics industry are also included.	1
Barber	BARB	BARB111	Students are introduced to the techniques used to analyze hair as to texture, density, and growth and their application to the barbering process.	2
Barber	BARB	BARB112	This course is an introduction to the basic methods of shampooing, rinsing and conditioning of the hair.	3
Barber	BARB	BARB113	This course is an introduction to the proper sanitation procedures relating to tools and equipment, station, and the shop. Additionally, students are trained in safety procedures for barber shops including special emphasis on the materials, equipment and procedures used for the protection of staff and customers from infectious disease organisms.	5
Barber	BARB	BARB114	This course is an introduction to the fundamentals of barber-styling including the use and care of a variety of barbering implements.	5
Barber	BARB	BARB115	Students use proper safety measures concerning the use of electrical equipment, chemicals, and blood-related injuries. Students will also demonstrate shop safety procedures. Students will earn a CPR-First Aid car.	2
Barber	BARB	BARB116	This course provides theory and practical experience in basic shear and clipper haircutting.	4

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### Career Education Programs

Barber	BARB	BARB117	Students identify customers' needs and solve problems. Special emphasis is given to the development of interpersonal communication skills and examining how employees' actions can directly impact customers' impressions.	3
Barber	BARB	BARB118	Students use effective communication skills and apply them in a practical setting.	3
Barber	BARB	BARB120	Instructional emphasis is on acquiring mathematical and problem-solving skills that apply to the barbering industry.	3
Barber	BARB	BARB121	This course is an introduction to the methods used to prepare a client for shaving, including proper razor handling and stroking. The fourteen facial areas are also included.	5
Barber	BARB	BARB122	This course provides practical application of barber-styling fundamentals with emphasis on the care of implement, shampooing, and basic haircutting methods.	5
Barber	BARB	BARB123	Students practice various types of hair styles and procedures to perform them	3
Barber	BARB	BARB124	Students apply the techniques previously learned in BARB 110, 111, 113	5
Barber	BARB	BARB125	Students apply human relation skills as interpersonal communications, conflict management on the job and team-building skills	3
Barber	BARB	BARB131	In this course students are introduced to razor cutting techniques	4
Barber	BARB	BARB132	This course provides advanced techniques in all phases of hair cutting to ready the student for employment. Students are prepared for State Board licensing examination on theory and practical procedures.	4
Barber	BARB	BARB133	This course provides advanced techniques in all phases of hair cutting to ready the student for employment. Students are prepared for State Board licensing examination on theory and practical procedures.	4
Barber	BARB	BARB134	In this course the practical applications of cutting and styling are emphasized.	5
Barber	BARB	BARB135	This course introduces the student to the art of hair style and design with emphasis on the selection of styles to complement facial features.	2
Barber	BARB	BARB140	This course is an introduction to the basic concepts of hair replacement systems and techniques.	4

## Course Descriptions • Section 5

### Career Education Programs

Biomedical Service Technician: Clinical Engineering	BMST	BMST102	This course meets the requirements of OSHA's Bloodborne Pathogens requirements and standards that are found in Title 29 of the Code of Federal Regulations at 29CFR 1910.1030. To prepare and ensure a scientifically clean and sterile environment within the laboratory setting. Additional topics include biohazard awareness.	3
Biomedical Service Technician: Clinical Engineering	BMST	BMST103	This course covers the uses and disclosures of identifiable health information that are allowed or permitted by the HIPAA Privacy Regulations. This course or portions of it may be fulfilled with an approved internship.	2
Biomedical Service Technician: Clinical Engineering	BMST	BMST105	In this course students safely use and operate a variety of ancillary test equipment. Students receive lecture and lab training as well as hands on experience with actual equipment.	5
Biomedical Service Technician: Clinical Engineering	BMST	BMST106	This course covers most aspects of soldering, a basic requirement in electronic assembly and repair. Types of solder and systems as well as application and removal of solder and good soldering practices are emphasized.	2
Biomedical Service Technician: Clinical Engineering	BMST	BMST107	This course covers the process of drawing schematics/block diagrams, read and plan diagnostic procedures, and use a five-step troubleshooting/servicing format.	3
Biomedical Service Technician: Clinical Engineering	BMST	BMST109	This introduction course prepares students to manage and repair shop projects. Projects may include preventive maintenance, installation, testing, calibration, and repair of various types of equipment.	3
Biomedical Service Technician: Clinical Engineering	BMST	BMST110	This is a continuance course for students to manage and repair shop projects. Projects may include preventive maintenance, installation, testing, calibration, and repair of various types of equipment.	2
Biomedical Service Technician: Clinical Engineering	BMST	BMST119	This is an group research project meant to build research and presentation skills. Students are required to produce and present six research projects to an audience. Projects subjects may vary from medical equipment, companies or professional associations, among others.	1

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### Career Education Programs

Biomedical Service Technician: Clinical Engineering	BMST	BMST201	This course covers several types of imaging processes and the associated physics behind those systems. The class is lecture and lab based. Systems investigated may include ultrasound, x-ray, PET, MRI, and CT scan among others. This course or portions of it may be fulfilled with an approved internship.	3
Biomedical Service Technician: Clinical Engineering	BMST	BMST215	This is an introductory course on common medical terms, acronyms, roots, and prefixes associated with the biomedical field.	3
Biomedical Service Technician: Clinical Engineering	BMST	BMST217	This course is an introduction to the more common transducers and devices used to gather biological signs or values. Students apply the operating principle and use of various transducers and measurement devices and the physical theories they operate on.	5
Biomedical Service Technician: Clinical Engineering	BMST	BMST218	This course covers several types of medical equipment: ECG, Pulse Oximeter, NIBP and infusion pumps are some of the types of equipment. The history, use, theory of operation and maintenance issues are also presented. This course or portions of it may be fulfilled with an approved internship.	3
Biomedical Service Technician: Clinical Engineering	BMST	BMST219	This is an independent research project meant to build research and presentation skills. Students are required to produce six research projects to an audience. Project subjects may vary from medical equipment, companies or professional associations, among others. Prior project approval from the instructor is required.	2
Biomedical Service Technician: Clinical Engineering	BMST	BMST220	During this course students are exposed to a lab setting meant to simulate an actual working environment. Students may intake, service, repair or evaluate medical or other types of equipment. Equipment may be provided by the class or public; students perform as closely as possible to a daily BMET routine. This course or portions of it may be fulfilled with an approved internship.	5
Biomedical Service Technician: Clinical Engineering	BMST	EEST101	This course is an introduction to safety practices required when working in the electronic equipment environment. It also provides electrical safety for high power devices and safety in electronics assembly and working in the electronic equipment industry.	4

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### Career Education Programs

Biomedical Service Technician: Clinical Engineering	BMST	EEST102	This course is an introduction to mathematical theory and applications as they relate to the electronic circuits and the electronic equipment field. The math involves algebra, trigonometry, complex numbers, and number systems such as engineering notation.	4
Biomedical Service Technician: Clinical Engineering	BMST	EEST103	This course is an introduction to the theory and fundamentals of basic DC electronic circuits. Basic DC principles, principles of electricity, components, circuit measurements, electronic equipment such as oscilloscopes, multimeters, waveform generators, and DC power supplies.	5
Biomedical Service Technician: Clinical Engineering	BMST	EEST104	This course is an introduction to the theory and fundamentals of basic DC electronic circuits with the use of electronic measurement and lab procedures. Topics include Ohm's law, series and parallel circuits, circuit analysis techniques, and magnetism. We use MultiSim software as part of the lab assignments along with using proto board to build DC circuits	4
Biomedical Service Technician: Clinical Engineering	BMST	EEST105	This course is an introduction to the theory and fundamentals of basic AC electronic circuits with the use of electronic measurement and lab procedures. Topics include measurement of AC circuits, inductors and transformers, RL circuits, capacitors, RC circuits, RLC circuits, and frequency response and passive filters. Lab assignments include building AC circuits using function generators with passive components and using simulation software to build circuits	5
Biomedical Service Technician: Clinical Engineering	BMST	EEST106	This course is an introduction to the theory and fundamentals of the reactance of the inductor and the capacitor in the AC circuit. Introduction to vectors, complex numbers, resistive-inductive, resistive-capacitive, and resistive-inductive-capacitive circuits. It also covers inductive-capacitive circuit and resonance circuits.	4
Biomedical Service Technician: Clinical Engineering	BMST	EEST107	This course is an introduction to the theory and fundamentals of basic AC electronic circuits as it applies to Ohm's Law and the understanding of basic transformer operation. Topics include measurement of AC circuits, inductors and transformers, RL circuits, capacitors, RC circuits, RLC circuits, and frequency response, and passive filters. This course also covers RL and RC circuit for pulse response and time constants.	5

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### Career Education Programs

Biomedical Service Technician: Clinical Engineering	BMST	EEST108	This course is an introduction to the theory and fundamentals of basic amplifiers and transistors. Topics include diodes, operation and biasing circuits, BJT amplifiers including types of amplifiers, Class A and B amplifiers, FET amplifiers including JFET, MOSFET, CMOS amplifiers.	4
Biomedical Service Technician: Clinical Engineering	BMST	EEST109	This course is an introduction to the theory and fundamentals of basic electronic devices: such as Diodes, Transistors, SCR, Triac, and FET. Other devices such as operational amplifiers, active filters, oscillators, switching circuits, voltage regulators, thyristors are also covered.	4
Biomedical Service Technician: Clinical Engineering	BMST	EEST110	This course is an introduction to the theory and fundamentals of programmable logic controllers with emphasis on applying and using ladder logic programming. Topics include hardware components, number systems, fundamentals of logic, basic PLC programming using ladder logic, timer & counter instructions, control instructions, data manipulation & math instructions, sequencer & shift register instructions. Lab includes using Allen-Bradley MicroLogix 1000 to build ladder logic programs to perform basic tasks.	5
Biomedical Service Technician: Clinical Engineering	BMST	EEST207	This course is an introduction to the theory and fundamentals of networking including IP addressing, network architectures, layers, and protocols.	5
Biomedical Service Technician: Clinical Engineering	BMST	EEST208	This course is an introduction to the theory and fundamentals of embedded controllers using PIC or other processors and C programming language.	5
Biomedical Service Technician: Clinical Engineering	BMST	EEST221	This course is an introduction to the theory and fundamentals of RFID Technology. Topics include RFID system lifecycle, frequency ranges, antennas, tags and interrogators and applications	4
Biomedical Service Technician: Clinical Engineering	BMST	EEST222	This course is an introduction to the theory and fundamentals of Fiber Optics, Electronic Communications and basic antenna systems.	5
Biomedical Service Technician: Clinical Engineering	BMST	EEST223	This course is an introduction to the theory and fundamentals of digital systems including number systems, Boolean algebra, combinational logic, and digital logic.	5

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### Career Education Programs

Biomedical Service Technician: Clinical Engineering	BMST	EEST224	This course is an introduction to the theory and fundamentals of Wireless Communications including modulation techniques, error correcting codes, cellular systems, and wireless LAN.	4
Biomedical Service Technician: Clinical Engineering	BMST	EEST225	This course is an introduction to the theory and fundamentals of Microprocessors including digital signal processing and conversion methods.	4
Broadcasting/Video Production	BROAD	BROAD103	This course is an introduction to the safety practices common to the broadcast and video production environment.	2
Broadcasting/Video Production	BROAD	BROAD110	This course is an introduction to the physical nature of sound and how the ear translates it from a physical phenomenon to a sensory one. Topics include waveform characteristics, reflection, diffraction, frequency response, phase, loudness levels, sound-pressure levels, thresholds, and perceptions.	5
Broadcasting/Video Production	BROAD	BROAD111	This course is an introduction to the operation of all signal delivery system components used to feed audio and video signals to the program feed. This is one of three classes (Broad 111, Broad 138, and Broad 139) that prepare students for the Society of Broadcast Engineers (SBE) Certified Television Operator exam.	5
Broadcasting/Video Production	BROAD	BROAD120	This course provides training in the operation of digital audio workstations and the application of the editing concepts in audio production projects.	5
Broadcasting/Video Production	BROAD	BROAD121	This course introduces students to the production process: theory, planning, and the application of sound project planning, identification of the responsibilities of various jobs within the production unit is also included.	3
Broadcasting/Video Production	BROAD	BROAD124	This course introduces and explores basic audio tools including pickup, monitoring, distribution, routing, and manipulation devices.	5
Broadcasting/Video Production	BROAD	BROAD131	This course introduces basic equipment and basic skills used for video production in the studio and in the field. Students learn about cameras, lighting instruments, and audio equipment and the skills needed to complete production projects.	4

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### Career Education Programs

Broadcasting/Video Production	BROAD	BROAD135	This course is designed for students to use publications, interviews and internet research, and other sources to gather facts about wages, hours, and working conditions to develop career goals. Students also write cover letters, resumes, and portfolios.	3
Broadcasting/Video Production	BROAD	BROAD136	This course introduces students to lighting theory and techniques with emphasis on the most commonly used lighting instruments and accessories, light grids, dimmer boards, and control systems. Practical applications include light set up for productions.	4
Broadcasting/Video Production	BROAD	BROAD137	This course introduces students to digital video editing concepts and techniques.	4
Broadcasting/Video Production	BROAD	BROAD138	This course examines the equipment used in studio and master control environments and allows students to investigate the equipment interconnections. Students practice the operational skills necessary to set up, adjust and operate various record and playback hardware under broadcast operational conditions. Instruction and training will help prepare students to pass the SBE CTO exam.	5
Broadcasting/Video Production	BROAD	BROAD139	This course instructs students about broadcast station structure and organization, and investigates the role and function of various station departments and FCC requirements for broadcast stations. Information and concepts are applied in operations activities.	5
Broadcasting/Video Production	BROAD	BROAD142	This course introduces students to audio and video editing methods. Practical applications include correcting recorded flaws and timing errors while editing pre-recorded material. Students perform to edit quality test standards.	5
Broadcasting/Video Production	#N/A	BROAD142	This course introduces students to audio and video editing methods. Practical applications include correcting recorded flaws and timing errors while editing pre-recorded material. Students perform to edit quality test standards.	5
Broadcasting/Video Production	BROAD	BROAD143	This course explores preventative maintenance methods and strategies, and students receive training in the use of electronic measuring devices, meters, and scopes. Soldering, splicing, and making cable connections are included.	5

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Broadcasting/Vi deo Production	#N/A	BROAD143	This course explores preventative maintenance methods and strategies, and students receive training in the use of electronic measuring devices, meters, and scopes. Soldering, splicing, and making cable connections are included.	5
Broadcasting/Vi deo Production	BROAD	BROAD151	This course introduces students to the study of direct-current electronic theory through a series of lectures and class discussions that are designed to be enjoyable, understandable, and practical. Topics covered include electrical terms, circuit components electricity and magnetism, series and parallel circuits, Ohm's law, energy and power, and DC circuits.	5
Broadcasting/Vi deo Production	BROAD	BROAD152	This course introduces students to the study of alternating current electronic theory through a series of lectures and class discussions designed to be engaging, understandable, and practical. Topics covered include characteristics of AC waveforms, capacitive and inductive reactance, transformers, impedance, resonant circuits, and active devices.	5
Broadcasting/Vi deo Production	BROAD	BROAD153	This course consists of lab activities designed to prepare students for lectures and enhance understanding of the principles learned in Broad 151 and 152. Activities include reading assignments, guided experimentation with DC and AC circuits, the use of test equipment and tools, and a series of simple projects to develop soldering skills and understanding of circuits and circuit diagrams.	5
Broadcasting/Vi deo Production	BROAD	BROAD170	This course introduces students to remote and robotic camera operations. Students will be prepared to take the Federal exam for sUAS certification.	5
Broadcasting/Vi deo Production	#N/A	BROAD170	This course introduces students to remote and robotic camera operations. Students will be prepared to take the Federal exam for sUAS certification.	5
Broadcasting/Vi deo Production	BROAD	BROAD205	This course builds on basic electronic concepts from core engineering courses to cover the principles and applications of various types of modulation, transmitters, receivers, power distribution systems, and grounding.	5
Broadcasting/Vi deo Production	BROAD	BROAD207	This course requires students to conduct and complete an advanced digital editing project that meets content quality and delivery standards.	5
Broadcasting/Vi deo Production	BROAD	BROAD208	This course investigates and applies various methods of content delivery, including ATSC, live streaming, video on demand, and video over IP systems.	5

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### Career Education Programs

Broadcasting/Video Production	BROAD	BROAD211	This course covers basic concepts of computer networking and applies them to audio and video systems.	5
Broadcasting/Video Production	BROAD	BROAD212	This course challenges students to put elements of pre-production planning into practice. Through helping plan and produce studio and field programs, students will create: Program proposals, scripts, show formats, crew assignments, data gathering worksheets, program mark-sheets, guest invitations and release forms, and basic scripts for VOs and teleprompter presentations. Students will also be introduced to pre-production meetings with clients (when available) to create a finished product based on the client's needs.	5
Broadcasting/Video Production	BROAD	BROAD214	This course challenges students to take a lead roll in producing programs for viewing. These productions include high school football, basketball (in season), studio panel shows or other designated topics. Students will also learn terminology for directing aforementioned programs, and will begin to direct shows.	5
Broadcasting/Video Production	#N/A	BROAD214	This course challenges students to take a lead roll in producing programs for viewing. These productions include high school football, basketball (in season), studio panel shows or other designated topics. Students will also learn terminology for directing aforementioned programs, and will begin to direct shows.	5
Broadcasting/Video Production	BROAD	BROAD216	This course is a continuation of the Pre-Production and Studio and Field Production classes. Students will produce, shoot, and edit digital video projects as assigned. They will also be given opportunities to create their own personal digital video project. Students will meet with clients (when applicable) to evaluate the progress towards the process message desired by the client.	5
Broadcasting/Video Production	#N/A	BROAD216	This course is a continuation of the Pre-Production and Studio and Field Production classes. Students will produce, shoot, and edit digital video projects as assigned. They will also be given opportunities to create their own personal digital video project. Students will meet with clients (when applicable) to evaluate the progress towards the process message desired by the client.	5

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Broadcasting/Vi deo Production	BROAD	BROAD217	This course explores audio measurements and standards by testing audio equipment under broadcast conditions. Headroom and distortion parameters are discussed. Practical applications include system design and installation of fixed and portable audio systems. Audio engineer duties are also discussed.	5
Broadcasting/Vi deo Production	BROAD	BROAD220	This course challenges students to show their skill, knowledge and mastery by fully producing, directing, and posting (when applicable) 2 panel shows using knowledge and skills gained in previous core and advanced classes. Project proposals must be approved by the instructor. The instructor provides guidance throughout the production process.	5
Broadcasting/Vi deo Production	BROAD	BROAD222	This course challenges students to show their skill, knowledge and mastery by fully producing, directing, and posting (when applicable) 2 non-fiction ENG stories. ENG stories must be approved by the instructor before producing, and may be story ideas that the student has been assigned by industry outlets, and has the potential of being used on industry news and panel shows.	5
Broadcasting/Vi deo Production	#N/A	BROAD222	This course challenges students to show their skill, knowledge and mastery by fully producing, directing, and posting (when applicable) 2 non-fiction ENG stories. ENG stories must be approved by the instructor before producing, and may be story ideas that the student has been assigned by industry outlets, and has the potential of being used on industry news and panel shows.	5
Broadcasting/Vi deo Production	BROAD	BROAD224	This course challenges students to demonstrate their skill, knowledge and mastery by fully producing, directing, and posting a digital video of their choice using knowledge and skills gained in previous core and advanced classes. Students, working under the guidance of the instructor, will be encouraged to produce a least one video (mini documentary, ENG story, music video, or scripted short feature) worthy of entry into NATAS and other award-recognition competitions. The content must be approved by the instructor prior to the pre production process.	5
Broadcasting/Vi deo Production	BROAD	BROAD226	This course explores the design, installation, maintenance, and operation of video equipment systems in support of master control operations, studio operations, and field production.	5

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Broadcasting/Video Production	BROAD	BROAD243	This course provides instruction on the operation of all signal delivery system components used to send audio and video signals to the program feed. Students will also monitor and meet all television signal standards and perform as the master control operator.	5
Broadcasting/Video Production	#N/A	BROAD243	This course provides instruction on the operation of all signal delivery system components used to send audio and video signals to the program feed. Students will also monitor and meet all television signal standards and perform as the master control operator.	5
Broadcasting/Video Production	BROAD	BROAD266	This course is designed to develop advanced field production skills necessary to complete remote projects. Included are site surveying, planning, set up and lighting of different venues while using single or multiple cameras.	5
Broadcasting/Video Production	BROAD	BROAD273	This course is an introduction to graphics devices and their applications in live studio and field production. Emphasis is on standard character generator functions and on motion graphics generators.	5
Broadcasting/Video Production	#N/A	BROAD273	This course is an introduction to graphics devices and their applications in live studio and field production. Emphasis is on standard character generator functions and on motion graphics generators.	5
Broadcasting/Video Production	BROAD	BROAD278	This course introduces students to video switchers, video routing systems, and video manipulation devices commonly used in production. Other areas of emphasis include the technical director duties and responsibilities, the use of keys, chroma keys, and other special effects.	5
Broadcasting/Video Production	#N/A	BROAD278	This course introduces students to video switchers, video routing systems, and video manipulation devices commonly used in production. Other areas of emphasis include the technical director duties and responsibilities, the use of keys, chroma keys, and other special effects.	5
Broadcasting/Video Production	BROAD	BROAD280	This course examines advances in audio and visual imaging. Emerging technologies are presented and explored.	5
Broadcasting/Video Production	#N/A	BROAD280	This course examines advances in audio and visual imaging. Emerging technologies are presented and explored.	5

## Course Descriptions • Section 5

### Career Education Programs

Broadcasting/Vi deo Production	BROAD	BROAD285	Faculty assists students in selecting an approved practicum related to television engineering. Student responsibilities include the submission of a formal report of no less than 500 words or, with instructor approval, a formal class presentation of no less than 15 minutes.	5
Broadcasting/Vi deo Production	BROAD	BROAD288	Faculty assists students in selecting an approved practicum related to video production. Student responsibilities include the submission of a formal report of no less than 500 words or, with instructor approval, a formal class presentation of no less than 15 minutes.	5
Broadcasting/Vi deo Production	BROAD	BROAD289	Faculty assists students in selecting an approved practicum related to television operations. Student responsibilities include the submission of a formal report of no less than 500 words or, with instructor approval, a formal class presentation of no less than 15 minutes.	5
Broadcasting/Vi deo Production	#N/A	BROAD289	Faculty assists students in selecting an approved practicum related to television operations. Student responsibilities include the submission of a formal report of no less than 500 words or, with instructor approval, a formal class presentation of no less than 15 minutes.	5
Broadcasting/Vi deo Production	BROAD	BROAD290	Faculty assists students in selecting an approved practicum related to audio production. Student responsibilities include the submission of a formal report of no less than 500 words or, with instructor approval, a formal class presentation of no less than 15 minutes.	5
Broadcasting/Vi deo Production	#N/A	BROAD290	Faculty assists students in selecting an approved practicum related to audio production. Student responsibilities include the submission of a formal report of no less than 500 words or, with instructor approval, a formal class presentation of no less than 15 minutes.	5
Broadcasting/Vi deo Production	BROAD	ENGR&111	This course is designed for students enrolled in an engineering program who need to learn the basic concepts of engineering graphics. Topics include two dimensional CAD use of lettering, scale, geometric construction, drawing layout, orthographic or multiview drawings and dimensioning. This course also introduces the concepts of 3-D Computer aided Drafting (CAD) solid modeling design and its application to engineering drawing.	5

## Course Descriptions • Section 5

### Career Education Programs

Broadcasting/Video Production	BROAD	ENGR&112	This course is an introduction to basic dimensioning techniques using mechanical orthographic, architectural plans, and civil plat drawings. Students will create manufacturing and construction drawings using industry level dimensioning techniques relating to mechanical architectural and civil disciplines applying ASME and AIA standards. This course also introduces the concepts of 2D and 3D Computer Aided Design (CAD) and its application to engineering drawing. AMATH 170 (as pre or corequisite), ENGR&111 (as a pre or corequisite), or instructor permission.	5
Business	BUS	ACCT&201	An introduction to the concepts and methods underlying the preparation of corporate financial statements using generally accepted accounting principles. Topics covered include the accounting cycle, cash, and receivables.	5
Business	BUS	ACCT&202	A continuation of the concepts and methods underlying the preparation of corporate financial statements using generally accepted accounting principles. Topics covered include long-term assets, liabilities, stockholders' equity, statement of cash flows and financial statement analysis	5
Business	BUS	ACCT&203	An introduction to the concepts and methods of managerial accounting and how accounting information is essential for management decisions. Topics covered include job costing, activity based costing, inventory management, cost - volume - profit relationships, budgets, short-term business decisions and capital investment decisions	5
Business	BUS	BUS&101	Dynamics and competitive business world are explored through the study of topics including economic systems, forms of business ownership, social responsibility and ethics, entrepreneurship, marketing, management, organizational design, finance, banking and securities markets	5
Business	BUS	BUS&201	An introduction to the American legal system and the functions of law in a business environment; legal reasoning and the process of resolving disputes in society; a preliminary analysis of contractual arrangements and business association in the business community	5

## Course Descriptions • Section 5

### Career Education Programs

Business	BUS	CMST&220	Introduction to the rhetoric of speech and the preparation and delivery of speech in an extemporaneous style, including ethical research methods, basic rhetoric and critical analysis, and organization of various types of presentations. Two to four speaking assignments are required, plus regular quizzes, peer review and written examination. Online resources will be integrated.	5
Business	BUS	ECON&201	This course focuses on the theory of the market systems as a method of allocating resources and distributing income and products. Analysis of current problems including government regulation, subsidies, monopoly and taxation	5
Business	BUS	ECON&202	Introduction to macroeconomics; elementary analysis of the determination of income through national income accounting. Covers macroeconomic issues including inflation, unemployment, economic growth, recessions, monetary/fiscal policy, and international trade and finance. Prerequisite: ECON& 201, MATH 098, and ENGL& 101 is recommended.	5
Business	BUS	ENGL&101	An expository written communication course emphasizing critical thought, reflective reading, and information literacy with attention to rules and conventions of standard American English.	5
Business	BUS	ENGL&235	Advanced written communication for technical and business purposes based on higher level researching of technical information, organizing data, and writing abstracts, studies and detailed business communications. Requires a formal report using prescribed guidelines, including front and back matter	5
Business	BUS	MATH&146	This course is designed to teach the student counting rules, probability, mean and standard deviation, graphing, confidence intervals, hypothesis testing and regression analysis. Also applications in business, health and technology	5
Carpentry	CARPT	CARPT101	This course is an introduction to basic math concepts and their applications to the carpentry industry. Linear, board, and square foot measurements and using formulas to calculate material requirements and costs are emphasized.	3
Carpentry	CARPT	CARPT102	This course is an introduction to the safety concerns and procedures used in the construction field. Students apply approved construction site safety and health procedures, use personal protection gear, and safety use hand and power tools.	3

## Course Descriptions • Section 5

### Career Education Programs

Carpentry	CARPT	CARPT103	This course is an introduction to residential blueprint reading with emphasis on plan types, dimension lines, scaling prints, and the symbols and abbreviations common to a variety of construction plans.	4
Carpentry	CARPT	CARPT104	The selection and installation of various types of construction materials is emphasized. Students identify the types and sizes of lumber, the use of fasteners in carpentry, and the installation of hardware.	2
Carpentry	CARPT	CARPT105	The proper use and care of measuring, layout and hand tools is emphasized.	4
Carpentry	CARPT	CARPT106	This course is an introduction to the proper use and care of portable, stationary, electric and pneumatic equipment.	5
Carpentry	CARPT	CARPT107	This course is an introduction to the use of various transits and levels used in the construction industry.	3
Carpentry	CARPT	CARPT108	The interpretation of architectural plans and their application at the construction site is emphasized. Topics include the principles, equipment and methods used to perform the site layout tasks. The process of distance measurement as well leveling for site layout is also presented.	3
Carpentry	CARPT	CARPT109	This course is an introduction to the procedures used to layout and frame walls and ceilings including roughing-in door and window openings, constructing corners and partition T's, bracing walls and ceilings, and applying sheathing.	4
Carpentry	CARPT	CARPT110	This course is an introduction to the materials and methods used to construct concrete forms and foundations including various reinforcement methods such as re-bar and welded-wire fabric.	3
Carpentry	CARPT	CARPT111	In this course, the correct and accurate placement of footings and piers are emphasized.	3
Carpentry	CARPT	CARPT112	This course is an introduction to the methods used to build, align and establish concrete grades in forms. Materials calculation is also included.	5
Carpentry	CARPT	CARPT201	This course is an introduction to the variety of floor types: requirements, assembly, and the advantages and disadvantages of each. Practical applications include the installation and finishing of hardwood floors, laminate/engineered floors and tile.	5
Carpentry	CARPT	CARPT202	Students demonstrate how to frame walls and ceilings according to federal, state, and local requirements.	5

## Course Descriptions • Section 5

### Career Education Programs

Carpentry	CARPT	CARPT203	This course is an introduction to the design and construction of residential and commercial stair systems. Topics include stair design factor, building code requirements, stair layout, cutting, installation and various tread/riser installations.	3
Carpentry	CARPT	CARPT204	This course is an introduction to the types of roofs including the layout of rafters for a variety of roof types: gable, hip, valley intersections. Both stick-built and truss-built roofs are included.	3
Carpentry	CARPT	CARPT205	Practical applications using conventional using conventional methods used for sheathing and exterior siding.	5
Carpentry	CARPT	CARPT206	This course is an introduction to the materials and methods used for sheathing and exterior siding.	4
Carpentry	CARPT	CARPT207	This course is an introduction to methods used to install a variety of windows, skylights, and exterior doors. The installation of weather-stripping and locks is also included.	5
Carpentry	CARPT	CARPT208	In this course, the types of exterior siding, surface covering systems, and the equipment used to apply them are emphasized.	5
Carpentry	CARPT	CARPT209	This course is an introduction to the types of interior systems, materials, and hardware commonly used in residential and commercial construction. The development of estimating skills to determine the cost of materials is also introduced.	3
Carpentry	CARPT	CARPT210	This course emphasizes surface preparation and application methods that meet federal, state, and local requirements. Also included are methods used to protect the interior of a structure against natural and man-made elements.	4
Carpentry	CARPT	CARPT211	Proper sequences used to set doors and install trim and hardware for doors and windows is emphasized in this course.	5
Carpentry	CARPT	CARPT213	This course is an introduction to the basic methods of job searching, resume writing and job interviewing.	2
Carpentry	CARPT	CARPT292	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	2

## Course Descriptions • Section 5

### Career Education Programs

Carpentry	CARPT	CARPT296	This course is Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider. *INSTRUCTOR APPROVAL REQUIRED	3
Carpentry	CARPT	CARPT297	This course is Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider. *INSTRUCTOR APPROVAL REQUIRED	2
Carpentry	CARPT	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Certified Medical Assistant	CMA	AMA110	This course will provide the basic vocabulary and terminology related to computer and word processing applications. An introduction to computer hardware and software is provided. This course will help build confidence and skills in using computer technology.	1
Certified Medical Assistant	CMA	AMA111	This course is an introduction to the basic concepts of MS Word. The components that will be covered are document creation, editing and saving, formatting text and paragraphs, working with tables, etc. as related to healthcare.	3
Certified Medical Assistant	CMA	AMA112	This course is an introduction to the first of a series of medical terminology courses associated with anatomy/physiology and the understanding of the disease process. Students use basic prefixes, suffixes, combining forms, and medical abbreviations.	4
Certified Medical Assistant	CMA	AMA113	This course focuses on the growing emphasis on customer service, the patient experience, cultural competence, quality improvement, patient safety, and corporate compliance that healthcare professionals deal with every day. Emphasis is placed on communicating appropriately, working well in teams, respecting and valuing differences, using limited resources efficiently, and interacting effectively with coworkers, patients, and guests.	5

## Course Descriptions • Section 5

### Career Education Programs

Certified Medical Assistant	CMA	AMA116	This is a practical applications course that focuses on a variety of administrative medical tasks to include appointment scheduling, internet research, referral processes for treatment, and records management. Students are introduced to a medical office simulation project.	3
Certified Medical Assistant	CMA	AMA117	This course is an introduction to medical terminology with an emphasis on the Integumentary, Digestive, Respiratory, and Cardiovascular Systems. Prerequisite required: AMA 112	4
Certified Medical Assistant	CMA	AMA119	This is an advanced practical applications course that focuses on a variety of administrative medical tasks. Students will continue their simulation project and will include designing a medical office waiting area as well as performing medical practice financials.	3
Certified Medical Assistant	CMA	AMA120	This course is an introduction to the basic concepts of MS Excel. Students will be performing basic calculations using formulas, formatting and printing worksheets, and creating powerful charts and graphs for the healthcare industry.	3
Certified Medical Assistant	CMA	AMA121	This is a continuance course focusing on medical terminology with an emphasis on the Blood, Lymph and Immune Systems; Musculoskeletal System, Urinary System, and Female Reproductive System. Prerequisite required: AMA 117	4
Certified Medical Assistant	CMA	AMA123	This course introduces the concepts and history of Electronic Health Record software, including meaningful use. The students will be oriented in a hands-on EHR simulation utilizing SpringCharts software. Emphasis will be placed on the basic patient's chart to labs, tests, codes, and templates. Students will apply all aspects utilizing EHR computer software	4
Certified Medical Assistant	CMA	AMA124	This course will fulfill the requirements for students to achieve their 2-year First Aid/CPR card required by the healthcare industry.	1
Certified Medical Assistant	CMA	AMA126	This course is an introduction to administrative skills related to schedule management, insurance billing, coding, collections, and the financial management of a medical practice.	4

## Course Descriptions • Section 5

### Career Education Programs

Certified Medical Assistant	CMA	AMA127	This course focuses on medical insurance terminology and processes for billing a variety of insurance types. They learn specifics of Medicaid, Medicare, TriCare, L&I, and commercial insurance and analyze agency payment vouchers. Secondary insurance billing requirements, rebilling, and electronic billing are included.	4
Certified Medical Assistant	CMA	AMA128	This is an advanced medical terminology course with an emphasis on the Male Reproductive System, Endocrine System, Nervous System, and Special Senses. Prerequisite required: Successful completion of AMA112, AMA 117, and AMA121.	4
Certified Medical Assistant	CMA	AMA129	This course is an introduction to coding of diagnoses and procedures of health care records with emphasis on coding for insurance reimbursement. Students learn to use both CPT and ICD-9-CM/ICD-10-CM classification manuals and reference materials. Prerequisite required: Successful completion of AMA 112, AMA 117, AMA 121, and AMA 128.	4
Certified Medical Assistant	CMA	AMA133	This course meets Washington State Department of Health objectives for the 4- and 7-hour HIV/Bloodborne Pathogens education requirement for credentialed healthcare providers and non-credentialed healthcare facility employees.	1
Certified Medical Assistant	CMA	AMA135	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The projects focus is on prior course work.	3
Certified Medical Assistant	CMA	CMA114	This course is an introduction to the basic concepts of the certified medical assistant profession with emphasis on professional behaviors as they relate to the patient-physician-medical assistant relationship.	3
Certified Medical Assistant	CMA	CMA150	This course focuses on the principles of medical office clinical procedures including preparing a patient for assisting a physician with examinations, procedures, and components of patient history. Covers patient charting, vital signs, sterile setups, universal blood precautions and methods of asepsis and sterilization. Topics also include techniques in patient interviewing and education. Lab provides the opportunity for practice proficiency in procedures.	6
Certified Medical Assistant	CMA	CMA151	This course is a continuation of Medical Office Clinical Applications I, covering assisting with other medical specialties, electro-cardiology, pulmonary function tests, emergency preparedness, nutrition and health, geriatrics and rehabilitation/therapy.	6

## Course Descriptions • Section 5

### Career Education Programs

Certified Medical Assistant	CMA	CMA152	Introduction to specimen collection and processing. Students perform basic CLIA waived (1988) hematology, chemistry and immunology testing; microscopic urine tests including gram smears and hcg; basic culture techniques and blood typing. Introduction to equipment use and maintenance, re-agent storage and handling, quality control measures and lab safety.	4
Certified Medical Assistant	CMA	CMA153	This course provides instruction in the principles of pharmacology for medical assistants. Course content includes preparing and verifying proper dosages of medication for administration, updating medication lists utilizing an electronic medical record system, using techniques to help explain medication treatment plans to patients to ensure patient understanding and compliance.	3
Certified Medical Assistant	CMA	CMA154	This course is a supervised medical assistant experience in a health care facility. The course provides students with the opportunity to apply knowledge and skill in performing administrative and clinical procedures and in developing professional attitudes for interacting with other healthcare professionals and consumers.	6
Certified Medical Assistant	CMA	CMA155	This course is a preparation to review the entire Medical Assisting program in preparation for the national Certified Medical Assistant examination.	2
Certified Medical Assistant	CMA	CMA156	This course focuses on preparation for an externship and job search by drafting resumes, cover letters and professional portfolios. Additionally, students will participate in mock interviews and understand the importance of networking.	2
Civil Engineering Technology	CET	AMATH170	This course is a modular web-enhanced progression of foundational mathematical concepts and computation: skills required for success in engineering technology fields of study. Math concepts are taught using STEM field contextual basis. Successful completion of this course is equivalent to completion of intermediate algebra and meets the pre-requisites for math courses requiring a MATH 098 Pre-requisite. Pre-requisite: MATH087 or qualifying compass or CASA scores equivalent to MATH092.	5

## Course Descriptions • Section 5

### Career Education Programs

Civil Engineering CET Technology	CET103	This course is an introduction to typical gravitational and lateral simple systems found in civil engineering. The concepts of reactions, Hooke's Law, elastic behavior of simple members under axial, bending, and torsion, forces are studied. The student learns about the coordinate systems required to properly model 3D vectors	3
Civil Engineering CET Technology	CET105	This course is an introduction to the principles of the properties of typical structural section areas and volumes and covers basic structural types such as trusses, beams, columns, and footings. Basic material science and its structural properties are also covered.	3
Civil Engineering CET Technology	CET109	This course is an introduction to surveying and how it relates to civil engineering with emphasis on the application of modern surveying equipment. The student learns the Public Land Survey System and horizontal and vertical datums. Spherical and Cartesian coordinate systems are also studied.	3
Civil Engineering CET Technology	CET111	This is an introductory course on digital survey points and TIN surfaces in Civil 3D. The student learns point file formats, data transfer, point styles and labels. The creation and editing of surfaces are included along with manipulating styles and labels and includes the concepts of contours and surface profiles.	3
Civil Engineering CET Technology	CET113	This course is an introduction to hydrology and includes the study of regional rainfall events and how to calculate runoff from a project site. The student learns how to model a runoff basin, identify soil types and land, and to use different computer models common in the field.	3
Civil Engineering CET Technology	CET117	This course is an introduction to the concepts and uses of the geographic information system (GIS) including the history of GIS, GIS data structures and sources of data; GIS tools, vendors and software; applications; and resources. Practical applications include spatial data display and query, map generation, and simple spatial analysis using Autodesk Map.	3
Civil Engineering CET Technology	CET121	This course is an introduction to how surveyors and engineers calculate points along lines and curves typically used in the field. The student learns how to draw problems to scale, the concept of bearings, and the use of trigonometry to solve right triangles. Horizontal and vertical curves are introduced.	3

## Course Descriptions • Section 5

### Career Education Programs

Civil Engineering CET Technology	CET123	This course is an introduction to horizontal and vertical alignments. The student learns how to design conditions affect the layout of works. Topics include how design speeds, sight distance and maximum and minimum grades influence the design of roads. Also covered are how to model alignments and profiles in Civil 3D.	3
Civil Engineering CET Technology	CET125	This course is an introduction to typical cross sections used in civil engineering. The student learns how to create typical assemblies to model basic road corridors in Civil 3D. The concepts of side slopes, daylight and catch points are also covered.	3
Civil Engineering CET Technology	CET127	This course is an introduction to the concept of project control. Topics include site recon, control layout, datums and data collector set up. The student learns how to determine control point locations and set monuments and traverse in three dimensions to a required horizontal and vertical closure.	3
Civil Engineering CET Technology	CET131	This course is an introduction to the typical materials used in a civil engineering project. The materials studied include concrete, asphalt, rock, PVC, steel and soil. The student learns how to determine the required specifications, testing requirements, placement, measurement and payment for a project.	3
Civil Engineering CET Technology	CET133	This course is an introduction to the concept of project control. Topics include site recon, control layout, datums and data collector setup. The student will learn how to determine control point locations, set monuments and traverse in three dimensions to a required horizontal and vertical closure.	3
Civil Engineering CET Technology	CET137	This course is an introduction to design topographic surveys required for typical civil engineering projects. The student learns how to plan the control, datums, and limits of the survey. In addition, they set up job files and acquire the required data using robotic total station equipment.	3
Civil Engineering CET Technology	CET202	This course is an introduction to finite element computer modeling with emphasis on static models and how they are used to determine member stresses and deflections. The student learns how to create 2D and 3D models of beams, trusses, and frames using CadreLite.	3

## Course Descriptions • Section 5

### Career Education Programs

Civil Engineering CET Technology	CET204	This course is an introduction to three-dimensional modeling of structural elements in Civil 3D. The student learns how to create and orient 3D elements such as cables, beams and footings and how to connect various elements together.	3
Civil Engineering CET Technology	CET212	This course is an introduction to open channel flow. The student learns how calculated and computer model flow in various types of open channels used in civil engineering such as pipes, ditches and trapezoidal channels.	3
Civil Engineering CET Technology	CET226	This course is an introduction to construction staking of typical engineering projects. The student learns how to create survey data for the different elements, export alignments and profiles and design surfaces to the data collector. The student also learns the stakeout function in the field and how to write up guard stakes.	3
Civil Engineering CET Technology	CET231	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	4
Civil Engineering CET Technology	CET232	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	4
Civil Engineering CET Technology	CET260	CAD systems, including 3D concepts, are used to produce engineering drawings using layers, masks, and groups. symbols and x-references are applied.	5
Civil Engineering CET Technology	CET296	Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries area. The learning activity is based on a written agreement with the participating training provider.	13
Civil Engineering CET Technology	CET297	Students enroll in the work-based learning seminar in order to receive an orientation to the work-based learning experience. Faculty meet with the students to provide support and assistance during the experience.	2

## Course Descriptions • Section 5

### Career Education Programs

Civil Engineering CET Technology	CS&141	This course focuses on using the Java programming language to teach basic programming and concepts including procedural programming (methods, parameters, return values), basic control structures (sequence, if/else, for loop, while loop), file processing, arrays and an introduction to defining objects	5
Civil Engineering CET Technology	ENGR&111	This course is designed for students enrolled in an engineering program who need to learn the basic concepts of engineering graphics. Topics include two dimensional CAD use of lettering, scale, geometric construction, drawing layout, orthographic or multiview drawings and dimensioning. This course also introduces the concepts of 3-D Computer aided Drafting (CAD) solid modeling design and its application to engineering drawing.	5
Civil Engineering CET Technology	ENGR&112	This course is an introduction to basic dimensioning techniques using mechanical orthographic, architectural plans, and civil plat drawings. Students will create manufacturing and construction drawings using industry level dimensioning techniques relating to mechanical architectural and civil disciplines applying ASME and AIA standards. This course also introduces the concepts of 2D and 3D Computer Aided Design (CAD) and its application to engineering drawing. AMATH 170 (as pre or corequisite), ENGR&111 (as a pre or corequisite), or instructor permission.	5
Civil Engineering CET Technology	ENGR&214	A fundamental course in the mechanics of rigid bodies in static equilibrium conditions. Solves practical engineering problems involving the loads carried by structural components using Static principles, vector notation and calculus for mathematical modeling. Teaches principles and their limitations within the context of Engineering applications and the engineering design process. Students must take MATH&153 (as pre or corequisite), PHYS&223 (as a pre or corequisite), or instructor permission.	5

## Course Descriptions • Section 5

### Career Education Programs

Civil Engineering CET Technology	ENGR191	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the first quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. College navigation topics, including financial aid, workforce funding, childcare, library services. Soft skill topics of "coping with pressure" and "decision making".	1
Civil Engineering CET Technology	ENGR192	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the second quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Create a social media profile that is geared towards employment. Soft skill topics of "drive for excellent results" and "cooperative teamwork"	1
Civil Engineering CET Technology	ENGR193	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the third quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Cover letters, resume, and related employment documents prepared. Complete mock interviews and receive feedback. Soft skill topics of "initiative" and "flexibility".	1
Civil Engineering CET Technology	ENGR194	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the fourth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Apply for internships, attend local networking or Online gatherings. Participate in industry related discussions either through discussion groups or social media. Soft skill topics of "influential communication" and "continuous learning".	1

## Course Descriptions • Section 5

### Career Education Programs

Civil Engineering CET Technology	ENGR195	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the fifth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Complete applications to transfer colleges or employers. Soft skill topics of "decision-making" and "strategic vision".	1
Civil Engineering CET Technology	ENGR196	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the sixth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Use feedback and finalize resumes, cover letters, polished social media presence. Soft skill topics of "planning and organizing" and "integrity and respect".	1
CNC Machinist CNCM	CNCM102	This course is an introduction to the machines and techniques used in the machine shop industry. The history of machine tools and their development into the machines of today are included in this evaluation of current best practices, including speed and feed calculations.	3
CNC Machinist CNCM	CNCM110	This course is an introduction to milling machines, both CNC and conventional. The student will complete the first mill project and learn care and use of the conventional mill as well as CNC mills used manually	2
CNC Machinist CNCM	CNCM111	This course introduces the student to the many ways CNC technology is used today. Machining, science, the food industry and many other applications of CNC are examined.	2
CNC Machinist CNCM	CNCM113	This course introduces the student to programming using standard EIA code (G and M codes). The student will produce new programs and edit existing programs manually (without CAD/CAM)	4
CNC Machinist CNCM	CNCM114	This course presents program and hardware problems to the student. Included are ATC arm failures, program errors, coordinate system setting errors, tool setting errors, and power system failures, and how to recover from them.	3

## Course Descriptions • Section 5

### Career Education Programs

CNC Machinist	CNCM	CNCM119	This course is an introduction to the CNC turning center and conventional lathe. The controls of the conventional lathe will be examined as will use of the CNC as a manual machine. The similarities between these machines will be stressed, rather than the differences.	3
CNC Machinist	CNCM	CNCM203	Students set up and run the CNC machining center from power on to shut down using existing programs. The use of tools from a common cutter package is also included.	5
CNC Machinist	CNCM	CNCM204	Students set up and run the CNC machining center from power on to shut down using student-created programs. Students program and run a part from a blueprint using existing work-holding devices.	5
CNC Machinist	CNCM	CNCM207	Students complete a set up for the CNC lathe and CNC mill. They choose and load tools, measure and enter tool offsets, load and dial in fixtures, set work coordinate systems, choose and download programs, run a fail-safe routine, and use advanced techniques for first part runs.	5
CNC Machinist	CNCM	CNCM208	This course is a continuation of CNCM 207. Students are given more complicated parts to make and will write their own programs	5
CNC Machinist	CNCM	CNCM209	This course focuses on high speed machining ,flexible manufacturing systems (FMS), and cell and pull systems.	3
CNC Machinist	CNCM	CNCM211	This course has the student run the CNC Lathe from power on to shut down using existing programs, and tooling.	5
CNC Machinist	CNCM	CNCM212	Students are trained to run the CNC lathe from power on to shut-down using student prepared programs.	5
CNC Machinist	CNCM	CNCM213	This course is an introduction to the basic principles of aerospace blueprint reading as it relates to machine shop-CNC operations. The interpretation of information located on engineering drawings and parts list navigation is emphasized.	3
CNC Machinist	CNCM	CNCM215	In this course, students use CAM software to program parts from engineering drawings.	5
CNC Machinist	CNCM	CNCM216	This course introduces computer-aided drafting, including the hardware that makes up a CAD workstation and how to use AutoCAD to set up drawings and construct lines, circles, arcs, various shapes, geometric constructions, and text. Topics include: the AutoCAD interface, templates, editing, layers, plotting, view tools, object snaps, multi-view drawings, text styles, tables and CAD drafting standards.	5

## Course Descriptions • Section 5

### Career Education Programs

CNC Machinist	CNCM	CNCM217	This course examines technologies expected to continue to be dominant or to become dominant manufacturing methods within the next 25 years. Water jet, stereo lithography, nanotechnology, ultrasonic machining, and liquid metal are featured.	2
CNC Machinist	CNCM	MACH116	Students will learn the syllabus, schedule, rules of the shop, Tooling U, emergency procedures, machine safety, and housekeeping.	3
CNC Machinist	CNCM	MACH117	In this course students will use precision measuring tools such as micrometers, height gages, calipers, gage blocks, and indicators	5
CNC Machinist	CNCM	MACH118	This course is an introduction to Geometric Dimensioning and Tolerancing as used in the machine shop environment. Topics presented include symbols, Rule 1 and Rule 2, ANSI Y14.5 and coordinate dimensioning. Position is emphasized.	5
CNC Machinist	CNCM	MACH119	This course provides the student with the knowledge and skills to apply advanced dimensioning, tolerancing, practices, and multiple views.	5
CNC Machinist	CNCM	MACH120	A continuation of the concepts introduced in MACH 111, students study elementary geometry, trigonometry, and Algebra as they apply to the machine shop. (This course meets the RI-Related Instruction for Computation for the AAS)	5
Commercial Truck Driving-Entry Level	TRUCK	TRUCK101	This course is a basic principles of safe driving principles and local and state driving laws with emphasis on the requirements of the Dept of Transportation, CPR/First Aid and Blood Borne Pathogens instruction to be provided to achieve certification. Also, acceptable workplace behavior, safety practices and health habits training is given	3
Commercial Truck Driving-Entry Level	TRUCK	TRUCK102	This course is an introduction to the trucking industry including occupation terminology and signage; trucking company structure and its operation; and driver responsibilities on the road at pickup/delivery points. The completion of inspection reports, daily/monthly logs, freight bills, waybills, manifests, and state accident reports is also included. Students will learn to use Commercial Carrier Road Atlas, plan destination and return trips	4
Commercial Truck Driving-Entry Level	TRUCK	TRUCK103	This preparation course, provides students the opportunity to practice in the simulator, and study the DOL CMV regulations. To prep for the CDL exams and endorsements	4

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### Career Education Programs

Commercial Truck Driving-Entry Level	TRUCK	TRUCK104	This course is an introduction to the pre-trip inspection procedures used in the commercial truck driving industry. Students acquaint themselves with emergency equipment	3
Commercial Truck Driving-Entry Level	TRUCK	TRUCK105	In this course students learn to drive in a close quarter warehouse type facility: hooking, unhooking of trailers, backing up to docks, and maneuvering in close quarters	5
Commercial Truck Driving-Entry Level	TRUCK	TRUCK106	This course is an introduction to preventative maintenance techniques, forklift operation methods, loading and unloading of cargo, and selecting appropriate hazardous cargo placards	3
Commercial Truck Driving-Entry Level	TRUCK	TRUCK107	In this course students learn to operate trucks in city situations: turns, lane changes, clutching and shifting, weather conditions, and parking	5
Commercial Truck Driving-Entry Level	TRUCK	TRUCK108	In this course students learn to operate trucks in open road situations: freeway driving entrance and exiting, passing vehicles safely, and open road techniques	5
Commercial Truck Driving-Entry Level	TRUCK	TRUCK110	This course focuses on IN TOWN CMV driving, providing additional training and gain experience in short-haul operations: in-town driving techniques, environmental factors and parking techniques	4
Commercial Truck Driving-Entry Level	TRUCK	TRUCK112	This course provides additional training and gain experience in long-haul operations	4
Commercial Truck Driving-Entry Level	TRUCK	TRUCK113	This course provides the student the opportunity to demonstrate their abilities in professional commercial administrative documentation, perform pre-trip and post-trip duties, meet dispatch requirements and perform fleep operations area activities	4
Computer Networking Systems Technician	CNST	CNST201	The Cisco Networking Academy consists of four blocks. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to the basic internetworking fundamentals.	5
Computer Networking Systems Technician	CNST	CNST202	This is the second block of the Cisco Networking Academy. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to routing theory and router technologies	5

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### Career Education Programs

Computer Networking Systems Technician	CNST	CNST205	This is an introductory course to the Linux environment including file system navigation, file permissions, command line interface, text editor, command shells, and basic network use. The versatility of Linux is explored through the use of a small platform computer.	5
Computer Networking Systems Technician	CNST	CNST207	Server operating systems are the foundation for computer network administration both locally and in the cloud. This course gives the learner an in-depth knowledge of Windows Server identity-related services, including Active Directory, user and group accounts, Group Policy, Active Directory Certificate Services, and advanced identity solutions such as Active Directory Federation Services and Active Directory Rights Management Services. The course helps prepare the learner for one of the three exams required to obtain the Microsoft Certified Solutions Associate (MCSA).	5
Computer Networking Systems Technician	CNST	CNST209	Server operating systems are the foundation for computer network administration both locally and in the cloud. This course gives the learner an in-depth knowledge of Windows Server networking services including TCP/IP, DNS, DHCP, IPAM, remote access, and helps prepare the learner for one of the three exams required to obtain the Microsoft Certified Solutions Associate (MCSA).	5
Computer Networking Systems Technician	CNST	CNST212	This is the third block of the Cisco Networking Academy. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to advanced routing and switching	5
Computer Networking Systems Technician	CNST	CNST213	This is the fourth block of the Cisco Networking Academy. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students will be introduced to the advanced Cisco networking utilizing project based learning	5
Computer Networking Systems Technician	CNST	CNST214	The Cybersecurity Essentials course covers foundational knowledge in all aspects of security in the cyber world, including information security, systems security, network security, mobile security, physical security, ethics and laws. It builds students' skills in related technologies, procedures, defense and mitigation techniques used in protecting businesses	5

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**Career Education Programs**

Computer Networking Systems Technician	CNST	CNST216	Scripting helps system administrators and power-users rapidly automate tasks that manage operating systems (Linux, macOS, and Windows) and processes. This course introduces the learner to scripting environments, techniques and troubleshooting. Emphasis is given to hands on practice.	5
Computer Networking Systems Technician	CNST	CNST218	Server operating systems are the foundation for computer network administration both locally and in the cloud. This course gives you the skills you need to install and configure a Windows Server operating system and helps prepare the learner for one of the three exams required to obtain the Microsoft Certified Solutions Associate (MCSA).	5
Computer Networking Systems Technician	CNST	CNST220	This course covers the fundamentals of building IT infrastructure on the AWS platform. Students learn how to optimize the AWS Cloud by understanding how AWS services fit into cloud-based solutions. In addition, students explore AWS Cloud best practices and design patterns for architecting optimal IT solutions on AWS, and build a variety of infrastructures.	5
Computer Networking Systems Technician	CNST	ECS201	This course provides students with the skills necessary to take and pass industry certification exam for Network Cabling Specialist. Students train in termination, testing and troubleshooting copper based network to include twisted pair and coaxial cabling systems. Instruction includes lecture and lab on various pin, jack and termination block configurations. All construction and testing will conform to industry standards and specifications	5
Computer Networking Systems Technician	CNST	ECS202	Applications of fiber optics, including telecommunications, CATV and computer networks, focusing on the technology, the components and their installation are covered in this course. Students utilize fiber specific equipment to learn and apply the fiber technology and perform fiber termination and testing	5
Computer Networking Systems Technician	CNST	ECS249	This course his course is a practical guide to resume preparation and job search. Students will complete various job preparation/job search assignments including a descriptive summary, resumes, cover letter, performance planner, and review questions likely to be asked at an interview.	3
Computer Networking Systems Technician	CNST	INFO101	Demonstrate essential skills using core Microsoft Office applications. Create and edit documents using word processing, spreadsheet, presentation, database, email, or other business applications.	5

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### Career Education Programs

Computer Networking Systems Technician	CNST	INFO104	Provides a foundation in hardware, software, basic networking, safety, and customer service skills. Acquire the essential skills and information to install, configure, optimize, troubleshoot and repair, upgrade and perform preventive maintenance of computers and mobile devices. This is course covers one of two CompTIA A+ certification exams. Passing a professional IT certification requires many addition hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Computer Networking Systems Technician	CNST	INFO105	Install, configure and upgrade, diagnose and troubleshoot, perform preventive maintenance, in operating systems, system software, virtualization and cloud concepts. This is course covers one of two CompTIA A+ certification exams. Passing a professional IT certification requires many addition hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Computer Networking Systems Technician	CNST	INFO120	The focus of this course includes to identify requirements and compatibility related to performing installation, upgrade, configure, mitigate of Windows operating systems. Students perform post-installation configurations, connect to a network, configure firewall and troubleshoot network issues. Hands-on practice includes configuring storage, backup and recovery.	5
Computer Networking Systems Technician	CNST	INFO205	The number one concern of computer professionals today continues to be information security. This course covers computer security skills required to identify threats, attacks and vulnerabilities. Hands-on labs include how to use cryptography, security technologies and tools. Learn about risk management, laws and regulations	5
Computer Networking Systems Technician	CNST	INFO206	This course builds a foundation in network security and practices. Analyze and protect networks from malicious attacks and breaches of confidentiality. Identify attack and vulnerability types, and manage auditing and logging. Examine wireless network security, mobile and embedded device security, access management, and risk mitigation.	5

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### Career Education Programs

Computer Networking Systems Technician	CNST	INFO292	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Culinary Arts	CARTS	CARTS101	This course is an introduction to the social, historical and cultural forces that have affected the culinary, baking and pastry professions	6
Culinary Arts	CARTS	CARTS104	This course is an introduction to table service principles with an emphasis on the physical aspects of table service: types of table service, table settings, and restaurant/dining room setup. Wine, beer, coffee, tea and non-alcoholic beverage service is also presented.	3
Culinary Arts	CARTS	CARTS105	This course introduces students to the preparation methods of cold foods including salads and salad dressings, cold appetizers and buffet items, and vegetable and fruit decorations	1
Culinary Arts	CARTS	CARTS106	This course includes both theory and lab applications in breakfast preparation with an emphasis on the organization and maintenance of a smooth workflow on the breakfast line. Food preparation areas include eggs, quick breads, meat and potatoes, grains, fruit plates and breakfast beverages.	2
Culinary Arts	CARTS	CARTS107	This course is an introduction to the principles and practices used to determine costs in a restaurant or food service organization. Topics presented include menu analysis and determining the cost of food, equipment and supplies.	4
Culinary Arts	CARTS	CARTS111	This course is an introduction to quick doughs, yeast products, and the basic preparation methods used with pies, breads and cookies.	5
Culinary Arts	CARTS	CARTS112	Students demonstrate how to interact professionally with customers and co-workers in order to provide quality service in a variety of situations. Emphasis is on the meaning of service, the identification of customers' needs and the development of strategies to solve customer problems.	5

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### Career Education Programs

Culinary Arts	CARTS	CARTS150	This course covers the identification and use of a variety of products including vegetables, fruits, herbs, nuts, grains, dry goods, prepared goods, dairy products and spices. This is also an introduction to theory and cooking techniques in product tasting, stock production, stews, broths, and advanced soups, along with starches such as potatoes, grains, rice and pasta. Timing, station organization and culinary French terminology are also presented.	6
Culinary Arts	CARTS	CARTS151	Students receive instruction and practice in advanced cooking methods used to simultaneously prepare vegetables, pastas, starches, proteins and contemporary sauces. Protein cookery methods, both moist and dry, are presented. Also included are culinary French terminology, station organization, plate presentation, and product tasting and evaluation.	6
Culinary Arts	CARTS	CARTS152	This class will concentrate on licensing requirements, preparing for and operating the food truck including marketing strategies. Emphasis is on the development of a comprehensive business plan.	5
Culinary Arts	CARTS	CARTS153	This class will concentrate on the safe and sanitary operation of a mobile food truck.	6
Culinary Arts	CARTS	CARTS154	This course focuses on food production practices that are governed by changing federal and state regulations. Content includes the prevention of food-borne illness, HACCP procedures, facility sanitation, and guidelines for safe food preparation, storage and reheating. Students take the National Restaurant Association ServSafe examination in this course	3
Culinary Arts	CARTS	CARTS201	The creation of menus from the perspective of concept, clarity, cost, price and efficiency is the focus of this course. Topics to be introduced include menu descriptions, layout, design and pricing.	2
Culinary Arts	CARTS	CARTS202	This is an introduction to a variety of meats, poultry and seafood used in a food service operation. Students identify, select, and prepare various types of meat, poultry and fish/shellfish.	3
Culinary Arts	CARTS	CARTS203	This course gives students a global perspective of food and nutrition issues that impact our world. Contemporary topics include food production, world-wide food supply and demand, land and water availability for crops and livestock, genetically modified food, food radiation and technological changes in agriculture.	2

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Culinary Arts	CARTS	CARTS204	The preparation and service of a variety of hot and cold desserts is emphasized in this course. Students prepare frozen and individually plated desserts for functions and banquets. The development of a dessert menu emphasizing variety is a focus of the course.	5
Culinary Arts	CARTS	CARTS211	This course prepares students to provide formal service in a variety of elegant settings. Emphasis is on food preparation, service and plate presentation that reflect artistry and style.	5
Culinary Arts	CARTS	CARTS213	This course is an introduction to the serving of alcoholic beverages and their appropriate pairing with menu items. Students review the procedures for purchasing alcoholic beverages and apply those skills when planning, budgeting and managing bar service.	4
Culinary Arts	CARTS	CARTS250	This course is an introduction to the catering and banquet industry with emphasis on the requirements needed to start an operation and manage its daily operations. Students develop and understanding of the organization and equipment needed.	6
Culinary Arts	CARTS	CARTS252	This course Regional cuisine explores the use of indigenous ingredients in the preparation of traditional and contemporary North American specialties. Students prepare, taste, serve, and evaluate traditional regional dishes.	4
Culinary Arts	CARTS	CARTS253	This course incorporates the study of sustainable best-practices emphasizing resource conservation, agro ecology and essential business skills/abilities. Students implement theoretical classroom concepts in the kitchen and through experiential learning opportunities.	4
Culinary Arts	CARTS	CARTS254	In this course students will learn the details of mixing, fermenting, shaping, and baking bread in this essential introductory course. The course covers baker's math, ingredient selection and function, how mixing affects fermentation, and other bread-baking fundamentals.	3
Culinary Arts	CARTS	CARTS255	This course introduces students to current culinary trends, including a variety of preparation methods. Topics include adaptation of native/regional ingredients and preparation methods to developing trends in contemporary cuisine.	2

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### Career Education Programs

Culinary Arts	CARTS	CARTS256	This course is an introduction to the various management topics as they relate to food service management: leadership, training, motivation, delegation, problem-solving, decision-making and conflict resolution.	4
Culinary Arts	CARTS	CARTS257	This course covers the important cooking concept of combining and balancing flavors. Flavor profiles encompass the analysis of what contributes to the flavor of the products that we eat and the development of flavors that will work in a wide variety of products.	5
Culinary Arts	CARTS	CARTS258	This course is a continuation of the concepts introduced in CARTS 105; students prepare cold foods including salads, salad dressings, cold appetizers, buffet items, as well as vegetable and fruit decorations.	5
Culinary Arts	CARTS	CARTS291	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	13
Culinary Arts	CARTS	CARTS292	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project I.	5
Culinary Arts	CARTS	CARTS293	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project II.	5
Culinary Arts	CARTS	CARTS294	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project III.	5

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Culinary Arts	CARTS	CARTS296	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Cybersecurity	CYBR	CYBR101	Learn about industry security standards and legal liability. This course familiarizes students to ethical considerations in decision making. Learn how to balance confidentiality, integrity, and availability of data without obstructing organizational productivity. Explore what can be done to encourage the ethical use of IT resources among users. Discuss what can be done to implement a strong security program to prevent cyber attacks.	5
Cybersecurity	CYBR	CYBR102	Introduction to fundamental information technology essential to managing desktop operating systems. Includes client operating system installations, applying security practices, management, troubleshooting, managing files and folders, and devices.	5
Cybersecurity	CYBR	CYBR103	This course will focus on the fundamentals of database systems. Students will study the basics of a database, design, and administration fundamentals. Students will perform data definition, manipulation, and queries using basic SQL. This course introduces students to the structure of data and database systems, their vulnerabilities to cyber-attacks, and the proper techniques required to protect these systems from damage.	5
Cybersecurity	CYBR	CYBR104	Provides a foundation in hardware, software, basic networking, safety, and customer service skills. Acquire the essential skills and information to install, configure, optimize, troubleshoot and repair, upgrade and perform preventive maintenance of computers, digital devices, and operating systems. This is the first course in a series of two to prepare for the CompTIA A+ certification. Passing a professional IT certification requires many additional hours of study before and after the course lecture. Expect to spend a significant number of hours studying	5

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### Career Education Programs

Cybersecurity	CYBR	CYBR105	This course introduces students to installation, configuration and upgrading, diagnosing and troubleshooting, preventive maintenance, virtualization and cloud concepts. This is the second course in a series of two to prepare for the CompTIA A+ certification. Passing a professional IT certification requires many additional hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Cybersecurity	CYBR	CYBR106	Introduction to Virtual Computing environments such as Oracle Virtual Box, VMware Workstation, Microsoft Hyper-V, VMware vSphere, and basics of Data Center Virtualization.	5
Cybersecurity	CYBR	CYBR107	Introduction to entry-level knowledge of computer networks and topologies. Covers concepts regarding Ethernet, Transmission Control Protocol (TCP), Internet Protocol (IP), Open System Interconnection Model (OSI), and Information Technology Infrastructure Library (ITIL). This is the first course in a series of two to prepare for CompTIA Network+ certification.	5
Cybersecurity	CYBR	CYBR108	Continues building a foundation coverage of unified communications, mobile, cloud, and virtualization technologies. Configure static routing, access control, and biometric access control. Introduces network tools and different types of network communication. This is the second course in a series of two to prepare for the CompTIA Network+ certification. Passing a professional IT certification requires many addition hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a	5
Cybersecurity	CYBR	CYBR109	Learn the fundamentals of Windows server through hands on activities. Install, tune, maintain, and update server software. Provides a foundation on roles and features such as Active Directory, Hyper-V, remote access, storage and printers.	5

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### Career Education Programs

Cybersecurity	CYBR	CYBR201	Provides a foundation in network security including risk management, knowledge of laws, regulations, policies, and ethics as they relate to cybersecurity and privacy. Analyze and protect networks from malicious attacks and breaches of confidentiality. Identify attack and vulnerability types, and manage auditing and logging. This is the first course in a series of two to prepare for the CompTIA Security+ certification. Passing a professional IT certification requires many additional hours of study before and after the course lecture.	5
Cybersecurity	CYBR	CYBR202	Continues building a foundation in network security. Learn theory and concepts, cryptography, encryption algorithms, communication and remote access, policy and incident response. This is the second course in a series of two to prepare for the CompTIA Security+ certification. Passing a professional IT certification requires many additional hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Cybersecurity	CYBR	CYBR203	Introduction to the network operating system. Discussions include core hardware and software configurations, file systems, command-line basics, and system administration.	5
Cybersecurity	CYBR	CYBR204	Emphasis on real-world security troubleshooting techniques using Linux or other current operating system. Fundamental hands-on practice with emphasis on how to deploy operating system components securely.	5
Cybersecurity	CYBR	CYBR205	Evaluate the security weaknesses of built-in and third-party applications. Learn about platform encryption and manipulate apps to circumvent client-side security techniques. Use mobile application analysis tools to identify deficiencies in mobile app network traffic, file system storage, and inter-app communication channels.	5
Cybersecurity	CYBR	CYBR206	Explore techniques used by hackers to gain unauthorized access to, assault, and exploit a device or network. Attack vectors help unauthorized elements to exploit the vulnerabilities in the system or network, including the human element. Topics include network traffic signatures, configuration of network appliances, cryptography, intrusion detection systems, and network defense tools.	5

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### Career Education Programs

Cybersecurity	CYBR	CYBR207	Acquire mitigation and defense skills using adversarial tactics, techniques, and procedures. Focus is on firewall design and management, VPNs, Internet security, policies, and ongoing security management. Students are introduced to web security and hardening the network infrastructure. Students will learn how to develop and implement security and network management policies.	5
Cybersecurity	CYBR	CYBR208	This course provides fundamentals and skills to use scripting for automation and administration of servers and network systems.	5
Cybersecurity	CYBR	CYBR292	This course allows a student to participate in an independent study group to strengthen existing skills needed for certifications.	5
Dental Assisting	DNTA	DNTA110	This course is an introduction the dental assisting profession including the role of the dental assistant in the dental office, legal and ethical considerations, HIPPA regulation, and dental equipment and terminology. Prerequisite: Must be admitted into the Dental Assisting program	2
Dental Assisting	DNTA	DNTA111	This course is an introduction to microbiology, and the application of standard infection control practices including aseptic techniques in the dental office. Infection control, hazardous waste management and safety standards are emphasized: Must be admitted into the Dental Assisting core program	5
Dental Assisting	DNTA	DNTA112	This course is an introduction to the biomedical sciences and their application to the dental assisting industry: anatomy and physiology, embryology, histology, and morphology. Prerequisite: Must be admitted into the Dental Assisting core program	5
Dental Assisting	DNTA	DNTA114	In this course students are introduced to the fundamentals of oral pathology, pediatric dentistry, nutrition, and pharmacology. Prerequisite: Must be admitted into the Dental Assisting core program	4
Dental Assisting	DNTA	DNTA120	In this course students are introduced to the fundamentals of chairside assisting including patient management, assessment of the patient's medical health history, medical emergencies, and student's role in patient care	4
Dental Assisting	DNTA	DNTA121	This is an introduction course that focuses on the fundamentals of chairside assisting including recording dental chart information, instrument transfer, maintaining the operating field, coronal polish, apply dental sealants, and the skills necessary to assist in the delivery of dental services to patients in a pre-clinical environment	4

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Dental Assisting	DNTA	DNTA122	This course is an introduction to fixed and removable prosthodontics with instruction in the physical properties and manipulation of dental materials used in diagnostic and prosthetic procedures. Fabrication of study models and the manipulation gypsum products are emphasized	3
Dental Assisting	DNTA	DNTA124	This is a mandated HIV/AIDS training course, Approved by Washington State Department of Health following the requirements of the WAC 296-823-099-18055.	1
Dental Assisting	DNTA	DNTA127	This course focuses on the basic business administration skills, necessary to manage a dental office. Customer service, appointment scheduling, patient files, record management, maintaining an inventory system, and familiarization with dental software programs are included. The use of mathematics to maintain records and accounts is emphasized	3
Dental Assisting	DNTA	DNTA128	An introduction to various dental sciences to include; dental radiography, preventive health care, selected specialty procedure, dental dam, and restorative procedures. An advanced chairside assisting course related to coronal polish, fluoride, and selected procedures	3
Dental Assisting	DNTA	DNTA130	This course is a continuation of the various dental sciences to include; dental anesthesia cavity classifications and rotary instruments	3
Dental Assisting	DNTA	DNTA131	This course is a continuation of the concepts introduced in DNTA 121, students learn to process new patients, chart information, and prepare rotary instruments. Students learn more advanced chairside skills including identification of hand instruments and tray set-ups	3
Dental Assisting	DNTA	DNTA134	In this course, students learn to apply dental dams and prepare anesthetics. Prerequisite: Successful completion of the first trimester	3
Dental Assisting	DNTA	DNTA139	This course is an introduction to the materials and techniques used for the usage of common restorative materials and cavity classifications. Students learn to place and remove matrix and wedges.	5

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### Career Education Programs

Dental Assisting	DNTA	DNTA144	An advanced course in dental radiography. Students apply both theory and practical applications in the area of production radiation including the taking and processing of dental x-rays. Content also covers digital radiography, quality assessment, and technique errors. Students will mount and evaluate full mouth series of radiographs using the paralleling and bisecting techniques. Radiographs will be exposed on manikins and patients	5
Dental Assisting	DNTA	DNTA146	This is an advanced chairside assisting course related to restorative procedures, and selected specialty procedures	5
Dental Assisting	DNTA	DNTA147	In this course, students learn advanced techniques in fixed and removable prosthodontics, including the manipulation of final impression materials, fabrication of a variety of provisional crowns, and the cementation of fixed appliances	3
Dental Assisting	DNTA	DNTA150	This is a introduction course, to the specialties of oral surgery and orthodontics. This course will include background, procedures and instrumentation	3
Dental Assisting	DNTA	DNTA151	In the Clinical Experience I course, students are assigned to off campus dental offices in the community or the Bates Dental Clinic. Clinical assignments are designed to enhance students' competence in performing dental assisting functions with emphasis on chairside assisting, radiograph technique, patient management skills, and professionalism. General Dentistry is emphasized. Weekly seminars are held to evaluate and review clinical applications	5
Dental Assisting	DNTA	DNTA152	This course has emphasis on the fabrication of a variety of provisional crowns as well as defining and describing aspects of cosmetic dentistry	4
Dental Assisting	DNTA	DNTA153	In this course, students learn the basic business administration skills necessary to manage a dental office. Fincancial systems to include employee records management will be introduced. The use of mathematics to maintain records and accounts is emphasized. Interview techniques will be reviwed and resumes will be prepared.	2
Dental Assisting	DNTA	DNTA162	In the Clinical Experience II course, students will apply the skills from DNTA 151, into their clinical practice to perfect their skills in performing dental assisting functions including expanded functions. General Dentistry is emphasized. Weekly seminars are held to evaluate and review clinical applications	3

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### Career Education Programs

Dental Assisting	DNTA	DNTA165	In the Clinical Experience III course, students will apply the skills obtained from DNTA 151 and DNTA 162, into their clinical practice to perfect their skills in performing dental assisting functions including expanded functions. General Dentistry or Specialty Dentistry is emphasized. Weekly seminars are held to evaluate and review clinical applications	2
Dental Lab Technician	DENLB	DENLB101	This course is an introduction to basic concepts of the dental laboratory industry: terminology, identification, weights and measures, health & safety practices, and the use of dental tools/machinery.	2
Dental Lab Technician	DENLB	DENLB102	This course is an introduction to tooth tissues and edentulous anatomy. The student will also learn tooth morphology and annotation.	3
Dental Lab Technician	DENLB	DENLB103	This course is an introduction to the various materials used in the first year of the dental laboratory program.	3
Dental Lab Technician	DENLB	DENLB104	This course is designed to provide students with an introduction and practice in the first laboratory processes involved in denture construction. The student will evaluate preliminary and final edentulous impressions; construct custom trays, baseplates and occlusal rims.	4
Dental Lab Technician	DENLB	DENLB105	This course is an introduction to the articulation, tooth selection, and arrangement of denture teeth, Festooning through deflasking, selective grinding, and the fabrication of the students first complete denture.	4
Dental Lab Technician	DENLB	DENLB106	This course is an introduction to the skeletal and muscular anatomy of the head and oral cavity. The student will also learn about the temporomandibular joint and how it functions.	2
Dental Lab Technician	DENLB	DENLB107	This course introduces the student to the fabrication techniques of an immediate denture, denture repairs, relines & rebases.	4
Dental Lab Technician	DENLB	DENLB108	This course introduces the student to advanced concepts of esthetic tooth arrangement techniques that produce high quality dentures that enhance the age, sex, and personality of the individual patient.	3
Dental Lab Technician	DENLB	DENLB110	This course is an introduction to the various classifications of mal-occlusion, the fundamentals of wire bending, soldering, and orthodontic study models.	3
Dental Lab Technician	DENLB	DENLB111	This course introduces the student to the fabrication of fixed orthodontic holding appliances that are temporarily cemented in the mouth by the dentist.	3

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### Career Education Programs

Dental Lab Technician	DENLB	DENLB112	This course introduces the student to the fabrication of removable orthodontic appliances that maintain tooth position and promote arch development. In addition the student will learn various repair techniques on these appliances.	3
Dental Lab Technician	DENLB	DENLB120	This course is an introduction to removable partial dentures. The student will learn the various classifications, design theory, survey techniques, and components for removable partial denture construction. In addition, the student will learn digital scanning and design techniques	3
Dental Lab Technician	DENLB	DENLB121	This course is the step by step process of preparing the master cast for partial denture construction. The student will learn model block out, duplication, refractory cast production, design transfer, wax up, and spruing through finishing. The student will then fabricate a Class I RPD framework.	3
Dental Lab Technician	DENLB	DENLB122	The student will build on the knowledge gained in DENLB 120 and 121 by fabricating a metal lingual bar, Kennedy bar, palatal strap, and closed horseshoe removable partial denture framework.	4
Dental Lab Technician	DENLB	DENLB123	In this course the student will set teeth on an upper and lower removable partial denture fabricated in DENLB 122. They will then process with an acrylic base and finish. In addition, the student will learn reline, repair, and rebase techniques for removable partial denture frameworks.	3
Dental Lab Technician	DENLB	DENLB124	In this course students will apply the theoretical knowledge and their experience with the step-by-step process of making an advanced denture using their basic learning skills.	3
Dental Lab Technician	DENLB	DENLB125	In this course students will apply the theoretical knowledge and their experience with the step-by-step process of making an orthodontic appliance using their basic learning skills.	3
Dental Lab Technician	DENLB	DENLB126	In this course students will apply the theoretical knowledge and their experience with the step-by-step process of making an advanced Removable Partial Denture using their basic learning skills.	3
Dental Lab Technician	DENLB	DENLB201	This course is designed to provide the student with a practical study of the individual teeth. Students will draw the individual teeth to scale from the linek manual. The student will also learn to build up tooth form with various colors of waxes to recognize how the anatomy of the natural tooth relates to each other and the overall form of the tooth.	5

## Course Descriptions • Section 5

### Career Education Programs

Dental Lab Technician	DENLB	DENLB202	This course introduces the student to materials that are used in fixed restorations. Students will be introduced to the basics of chemistry by learning about metallurgy and their chemical and physical properties. Additionally, the student will gain an understanding of weights, measures, and calculations, processing of alloys, metal treatment and torch techniques as well as metal sensitivities. The student will then be introduced to porcelain, its chemical composition, properties, application, and manufacturing.	2
Dental Lab Technician	DENLB	DENLB203	This course introduces the student to the theory and practice of fabricating individual metal crowns. The student will learn the steps involved in fabricating gold inlays, onlays, & crowns.	5
Dental Lab Technician	DENLB	DENLB204	This course is designed to provide the student with an introduction to the principles of occlusion, including the anatomical structures of the oral cavity, the determinants of occlusal morphology, malaligned teeth versus ideal teeth and the physiology of mandibular movements as they relate to the fabrication of dental restorations.	2
Dental Lab Technician	DENLB	DENLB205	This course is designed to provide the step-by-step procedures in fabricating metal bridges, post-soldering, fabricating provisionals, & fabrication of reduction copings.	5
Dental Lab Technician	DENLB	DENLB206	An introduction to the theory and practice of fabricating fixed porcelain prosthesis. The student will learn about the history of ceramics with old technologies as well as new technologies such as layering a Zirconia coping, Emax, and titanium copings. The student will fabricate modelwork for their ceramic units.	2
Dental Lab Technician	DENLB	DENLB207	This course is an introduction to the understructure design for porcelain fused to metal crowns, waxing, and porcelain margin cut back, investing, & finishing the alloy for preparation for porcelain.	5
Dental Lab Technician	DENLB	DENLB208	This course is designed to provide the student with the history of the dental profession, the legal obligations of the dental technician under State Dental Practice Acts, ethical responsibilities of the technician towards the dental profession, and the fundamentals of the day to day operation of a dental laboratory.	3

## Course Descriptions • Section 5

### Career Education Programs

Dental Lab Technician	DENLB	DENLB209	This course will assist the student in following the step by step processes in the application of porcelain to metal understructure. The student will also learn about color in dentistry and taking shades.	5
Dental Lab Technician	DENLB	DENLB211	This course will assist the student in following the step by step processes in the fabrication of Emax pressable porcelain crowns & veneers.	4
Dental Lab Technician	DENLB	DENLB212	This course is an introduction to the theory and practice of fabricating dental prosthetics digitally with an understanding of the various systems available as it pertains to open and closed architecture. Students will also learn a general understanding about material selection for the final prostheses. They will gain an understanding by digitally manipulating and morphing teeth, importing and exporting stl. digital files, nesting and computer aided manufacturing of digital design fabrications. The student will by computer aided design and manufacturing of individual copings and full wax units.	5
Dental Lab Technician	DENLB	DENLB213	In this course students will apply the theoretical knowledge and their experience with the step-by-step process of an advanced project using two of their basic learning skills.	4
Dental Lab Technician	DENLB	DENLB214	In this course students will apply the theoretical knowledge and their experience with the step-by-step process of an advanced project using their basic learning skills.	3
Dental Lab Technician	DENLB	DENLB215	In this course students will apply the theoretical knowledge and their experience with the step-by-step process of an advanced project using two their basic learning skills.	3
Dental Lab Technician	DENLB	DENLB296	Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.	1
Dental Lab Technician	DENLB	DENLB297	Students enroll in the work-based learning seminar in order to receive an orientation to the work-based learning experience. Faculty meets with the students to provide support and assistance during the experience.	3

## Course Descriptions • Section 5

### Career Education Programs

Dental Lab Technician	DENLB	DIESL208	This course focuses on applying and demonstrating skills and capabilities to inspect (troubleshoot, analyze/diagnose, test), remove, and repair or replace components or systems within manufacturer's specifications. Service and preventive maintenance techniques are applied to the following systems: engines and fuel systems, power trains, hydraulic systems, electrical systems, air conditioning, and refrigeration systems.	7
Dental Lab Technician	DENLB	DIESL291	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	13
Dental Lab Technician	DENLB	DIESL292	This course is an independent study in special projects to give students additional training in a specific area selected by the instructor. Emphasis is on individual student needs to improve or expand skills in a variety of areas.	5
Dental Lab Technician	DENLB	DIESL293	This course is an independent study in special projects to give students additional training in a specific area selected by the instructor. Emphasis is on individual student needs to improve or expand skills in a variety of areas.	5
Dental Lab Technician	DENLB	DIESL296	This course is Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.	13
Dental Lab Technician	DENLB	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Denturist	DNTU	DNTU101	In this course students will learn appropriate application of infection prevention and control train in safety procedures including OSHA/WSHA and infection control compliance for Denturists offices and laboratories. This includes a special emphasis on the materials, hazardous materials, interpreting MSDS's, equipment, and procedures mandated in the dental environment for protection of staff and patients from infection by infectious disease organisms. Students also complete the State of Washington "Aids Awareness Course."10	2

**Course Descriptions • Section 5****Career Education Programs**

Denturist	DNTU	DNTU102	This course focuses on cell biology, microbiology, developmental embryology, and histology with an emphasis on the oral cavity	3
Denturist	DNTU	DNTU103	This course covers the basic anatomy of the residual ridge and surrounding structures as well as primary and final impressions of these ridges using the proper materials and trays. Impressions are poured and trimmed with proper materials and techniques	3
Denturist	DNTU	DNTU104	This course covers fabricate base plates and occlusal rims using various materials in preparation for tooth setting	2
Denturist	DNTU	DNTU105	This course covers proper tooth selection and ordering techniques and then start their required lab set ups	3
Denturist	DNTU	DNTU106	This course covers various dental gypsum and impression material	2
Denturist	DNTU	DNTU107	This course covers the wax up, processing, and other lab steps needed to supply a proper prosthesis for a patient	2
Denturist	DNTU	DNTU108	In the complete denture fabrication I practical lab, students develop and apply the proper techniques in set up, processing and polishing an acrylic RPD (flipper)	2
Denturist	DNTU	DNTU109	In the dental office management I clinical lab, students identify proper patient record keeping. In addition, individual policy and informational hand outs are completed in preparation for actual clinical cases	1
Denturist	DNTU	DNTU110	This course introduction to the anatomy and physiology of the head, neck, temporomandibular joint, muscles, nerves, blood vessels, lymphatic system, skeletal system, digestive system, and dental anatomy related to sinuses, glands, teeth, periodontal structures, and other oral structures	2
Denturist	DNTU	DNTU111	This course continues DNTU 105 with further required lab set up	1
Denturist	DNTU	DNTU112	This course focuses on first aid and CPR procedures in simulated situations. This includes the provider CPR/first aid course. Health histories are taken and analyzed for information important to needed patient care	3
Denturist	DNTU	DNTU114	This course is a continuance of DNTU108, students will apply techniques previously learned in DNTU 108 and work on real patient cases when available	1
Denturist	DNTU	DNTU115	This course introduces students to area of removable partial dentures including theory, clinical classification and evaluation	2

## Course Descriptions • Section 5

### Career Education Programs

Denturist	DNTU	DNTU116	In this course students survey study models and design practical cases	3
Denturist	DNTU	DNTU117	In this course students perform proper scheduling, billing and HIPPA privacy requirements on actual cases	2
Denturist	DNTU	DNTU118	This practical clinical denture procedures I course, students will prepare proper room set up and tear down procedures for clinical cases along with clinical instrument processing. All clinical aspects of assigned pt cases are accomplished	2
Denturist	DNTU	DNTU119	In the practical dental impressions procedures I clinical experience, students will perform impressions on patient cases assigned by instructors	2
Denturist	DNTU	DNTU120	This course completes the remaining anatomical systems not covered in DNTU 110	3
Denturist	DNTU	DNTU121	This practical lab course complete their required set ups of cross-bite cases and a timed 20 degree	1
Denturist	DNTU	DNTU123	In this course students complete denture repairs on clinical cases	2
Denturist	DNTU	DNTU124	This course requires students to complete cast designs on paper, student continues to survey and design cases 8-15 on lab models	2
Denturist	DNTU	DNTU125	This course is the continuance of the iIntroduction Oral Pathology I, students will apply prior skills, and theory to fulfill the oral pathology studies	2
Denturist	DNTU	DNTU126	This course is a practical learning experience to learn proper room set up and tear down procedures for clinical cases along with clinical instrument processing. Actual patients are treated during this course toward their total of 10	2
Denturist	DNTU	DNTU127	In this course students perform impressions, bite registrations and proper mounting on clinical cases assigned during this semester	2
Denturist	DNTU	DNTU128	In this practical lab experience students complete the required clinical case lab work assigned to them this semester	1
Denturist	DNTU	DNTU129	In this course students follow proper techniques to block-out and duplicate cases prior to waxing up RPDs. Then students will observe how finished frameworks are tried into the mouth	1
Denturist	DNTU	DNTU131	In this course students perform framework wax ups on assigned practical cases	4
Denturist	DNTU	DNTU132	In this course students set teeth in partials opposing dentures, other RPDs or natural teeth, as well as completing the RAP lab practical case	2
Denturist	DNTU	DNTU135	This course is an introduction to Oral Pathology	3

## Course Descriptions • Section 5

### Career Education Programs

Denturist	DNTU	DNTU136	In the clinical denture procedures III practical lab experience, requires students perform the necessary clinical work on assigned patient cases	2
Denturist	DNTU	DNTU138	The fabrication clinical III lab, is required work for their clinical cases assigned to them this semester	0
Denturist	DNTU	DNTU139	In this course students will apply professional office management skills pertaining to proper scheduling, billing and HIPPA privacy requirements on actual cases.	2
Denturist	DNTU	DNTU201	In the complete denture repair II practical lab course, students practice the proper techniques used to accomplish complex repairs on dentures	2
Denturist	DNTU	DNTU203	In this course students apply skills in the lab utilizing techniques unique to partial denture repair/relines	3
Denturist	DNTU	DNTU204	In the dental office management IV course, students will complete their record treatment documentation on their clinical cases and transfer any unfinished cases. State laws dealing with records are discussed	2
Denturist	DNTU	DNTU205	In this course students perform post-insertion adjustments of their clinical cases as needed	1
Denturist	DNTU	DNTU206	In this course, federal and State laws are discussed as they relate to licensing. Ethics pertaining to a licensed healthcare professional are discussed	1
Denturist	DNTU	DNTU207	In this course students study different occlusal schemes and perform face-bow remounts and occlusal corrections of clinical cases where needed	2
Denturist	DNTU	DNTU208	In this clinical denture lab IV course students continue to complete their clinical cases and are given opportunities to practice unique, specialized techniques found in industry	2
Denturist	DNTU	DNTU210	In this course students specifically focus on the geriatric patient needs by identifying the many unique requirements, both physically and psychologically	3
Denturist	DNTU	DNTU211	In the fabrication clinical IV course students will complete the lab portions required clinical cases assigned to them this semester.	2
Denturist	DNTU	DNTU212	In this course students will research the history of implants and the numerous systems available for us	2
Denturist	DNTU	DNTU214	This course provides students the opportunity to research and seek further into the an area of study that has increased their interest in previous courses. This course also prepares students for the Com. Denture final exam.	1

## Course Descriptions • Section 5

### Career Education Programs

Denturist	DNTU	DNTU215	In this course students discuss and when available work on advanced cases such as gasket retained dentures, swing –lock and dual-path RPDs. If and when other rem. appliances become part of the denturist scope of practice, bleaching trays, nightguards and bruxing appliances will be taught in this course	1
Denturist	DNTU	DNTU220	In the dental office management V clinical lab, students will complete their record treatment documentation on their clinical cases including scheduling both clinic appointments and required lab time. State laws dealing with records are discussed and the State on-line jurisprudence exam is taken prior to Board application	2
Denturist	DNTU	DNTU222	In the fabrication clinical V course, students are to complete the lab portions of required clinical cases assigned to them this semester.	3
Denturist	DNTU	DNTU223	In this course students complete their record treatment documentation on their clinical cases and transfer any unfinished cases. State laws dealing with records are discussed and the State on-line jurisprudence exam is taken prior to Board application	3
Denturist	DNTU	DNTU229	The clinical denture procedures V clinical lab course, is a continuance for students to complete their 10 required clinical cases and are given opportunities to practice unique, specialized techniques found in industry	4
Denturist	DNTU	DNTU233	This course is final review of all previous lab and clinical cases is accomplished and then the RPD final exam is taken.	1
Denturist	DNTU	DNTU296	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	2

## Course Descriptions • Section 5

### Career Education Programs

Diesel and Heavy Equipment Technology	DIESL	DIESL100	The course is an introduction to the fundamentals of electricity and its application in the diesel and heavy equipment industry. The uses of specialty equipment to troubleshoot and repair are included with emphasis on industry safety requirements and the use of protective devices. Concurrent enrollment: DIESL 112, DIESL 113, DIESL 114 or instructor permission.	5
Diesel and Heavy Equipment Technology	DIESL	DIESL105	This course is an introduction to the diesel industry with emphasis on occupational safety principles and WISHA and Department of Ecology guidelines. Concurrent enrollment: DIESL 106, 107, 108, 109 and 110 or instructor permission.	1
Diesel and Heavy Equipment Technology	DIESL	DIESL106	This course is an introduction to basic engine theory and operation and their application to the maintenance and repair of gasoline and diesel engine systems common to heavy equipment. Concurrent enrollment: DIESL 105, 107, 108, 109 and 110 or instructor permission.	5
Diesel and Heavy Equipment Technology	DIESL	DIESL107	This course is a continuation of the concepts introduced in DIESL 106, students learn to identify engine systems and their component parts. Concurrent enrollment: DIESL 105, 106, 108, 109 and 110 or instructor permission.	1
Diesel and Heavy Equipment Technology	DIESL	DIESL108	In this course perform procedures for overhauling heavy-duty diesel engine including disassembly, cleaning and inspection, adjustments, and reassembly. Concurrent enrollment: DIESL 105, 106, 107, 109 and 110 or instructor permission.	4
Diesel and Heavy Equipment Technology	DIESL	DIESL109	This course is focused on the operating principles of pneumatic brakes including ABS, roll stability, and collision avoidance are presented. Concurrent enrollment: DIESL 104, 105, 106, 107, 108, and 109 or instructor permission.	2
Diesel and Heavy Equipment Technology	DIESL	DIESL110	This course introduces the operating principles of pneumatic brakes, which includes: ABS, roll stability, and collision avoidance	2
Diesel and Heavy Equipment Technology	DIESL	DIESL112	This course is focused on the practical applications include working with cranking circuits, type A & B charging circuits, conventional and electronic spark ignition, component operation, testing and industry-required repairs. Concurrent enrollment: DIESL 100, 113, 114 or instructor permission	4

## Course Descriptions • Section 5

### Career Education Programs

Diesel and Heavy Equipment Technology	DIESL	DIESL113	This course introduces testing of common input and output electronic components and to use specialty tools and equipment used for code retrieval; service processes and repair are introduced. Concurrent enrollment: DIESL 100, 112, 114 or instructor permission.	3
Diesel and Heavy Equipment Technology	DIESL	DIESL114	This course introduces the EPA 609 requirements with emphasis on the achievement of certification. Component identification, operation, testing, and repair methods to meet industry regulations are included. Concurrent enrollment: DIESL 100, 112, 113, or instructor permission.	3
Diesel and Heavy Equipment Technology	DIESL	DIESL115	This course is an introduction to the Power Trains Program. Emphasis is given to shop and tool safety, and the fundamentals of precision measurements and fasteners. Concurrent enrollment: DIESL 117, 118, 119, 120, 121, 122, 123 or instructor permission.	1
Diesel and Heavy Equipment Technology	DIESL	DIESL117	This course introduces the design characteristics, operation and basic troubleshooting of automated manual transmissions. Concurrent enrollment: DIESL 115, 118, 119, 120, 121, 122, 123 or instructor permission.	2
Diesel and Heavy Equipment Technology	DIESL	DIESL118	This course focuses on the fundamentals of medium and heavy duty clutch operation, diagnosis of various symptoms and causes of clutch failures and provide remedies to prevent future failures. Concurrent enrollment: DIESL 115, 117, 119, 120, 121, 122, 123 or instructor permission.	2
Diesel and Heavy Equipment Technology	DIESL	DIESL119	The course focuses on the fundamental understanding of automatic and power shift transmissions and torque converters including the basics of operation, design characteristics and failure analysis of both hydro-mechanical and electronically controlled units. Concurrent enrollment: DIESL 115, 117, 118, 120, 121, 122, 123 or instructor permission.	2
Diesel and Heavy Equipment Technology	DIESL	DIESL120	This course focuses on the fundamental understanding of the principles of operation, maintenance procedures, and analysis of vibrations for driveline systems. Concurrent enrollment: DIESL115, 117, 118, 119, 121, 122, 123 or instructor permission.	1

## Course Descriptions • Section 5

### Career Education Programs

Diesel and Heavy Equipment Technology	DIESL	DIESL121	This course focuses on the fundamental differential/final drive system service including disassembly, failure analysis, and reassembly to O.E.M. specifications, . The various styles, applications, and operation of mechanical final drives used in construction and agricultural equipment are also included. Concurrent enrollment: DIESL: 115, 117, 118, 119, 120, 122, 123 or instructor permission.	2
Diesel and Heavy Equipment Technology	DIESL	DIESL122	This course focuses on the correct inspection and installation procedures for standard and unitized wheel ends used on heavy duty trucks	1
Diesel and Heavy Equipment Technology	DIESL	DIESL123	This course focuses on the fundamental transmission service on single and twin countershaft transmissions including disassembly, failure analysis, preventive remedies, and reassembly to OEM specifications. Concurrent enrollment: DIESL 115, 117, 118, 119, 120, 121, 122 or instructor permission.	4
Diesel and Heavy Equipment Technology	DIESL	DIESL130	This course is an introduction to hydraulic/pneumatic theory, component design, and service practices for hydraulic systems. This includes instruction in pumps, motors, valves, safety, seals, cylinders, and filters. Instruction is facilitated by use of simulations.	5
Diesel and Heavy Equipment Technology	DIESL	DIESL131	In this course diagnose and test a variety of hydraulic components and systems. To develop and refine skills in the repair and maintenance of hydraulic systems in truck ad heavy equipment. Instruction is enhanced through use of simulation.	5
Diesel and Heavy Equipment Technology	DIESL	DIESL132	This course focuses on the role and operation of steering system components in trucks and heavy equipment and their relationship to brake and suspension systems. Students develop and refine skills in the repair and maintenance of steering systems. The major emphasis will be inspection and repair methods for steering system components.	3
Diesel and Heavy Equipment Technology	DIESL	DIESL133	This course focuses on the role and operation of suspension system components in trucks and heavy equipment and their relationship to brake and steering systems. Students develop and refine skills in the repair and maintenance of suspension systems. The major emphasis will be inspection and repair methods for suspension system components.	2

## Course Descriptions • Section 5

### Career Education Programs

Diesel and Heavy Equipment Technology	DIESL	DIESL155	In this course, emphasis is on theory and shop practices required to maintain, troubleshoot, and repair equipment encountered in the industry. To follow and apply proper procedures and standards to perform A-B-C, inspections, Preventive Maintenance Inspections (PMI) and Department of Transportation (DOT) inspections.	8
Diesel and Heavy Equipment Technology	DIESL	DIESL206	This course is an application of gained knowledge of various systems, the relationship between systems, their components, and the procedures for providing service to engines and fuel systems, power trains, hydraulic systems, electrical systems, air conditioning and refrigeration systems, and the procedures for performing periodic maintenance.	7
Digital Media	DIGIT	DIGIT102	In this course, students will explore the composition method using Photoshop along with technical information to enhance, alter and transform photographic images	5
Digital Media	DIGIT	DIGIT103	In this course, students will explore the composition method using Photoshop along with technical information to enhance, alter and transform photographic images	5
Digital Media	DIGIT	DIGIT105	In this course, students will explore the composition method in photography along with the technical information to use a DSLR camera to its full potential.	5
Digital Media	DIGIT	DIGIT121	This course examines the framework for pre-production processes for digital media. Students learn to plan media productions and create scripts for various media. Emphasis on the requirements of the planning stage, from logistics to regulations.	5
Digital Media	DIGIT	DIGIT126	This course focuses on production process using the common tools found in studio, on field ENG's, and Narrative film style productions	5
Digital Media	DIGIT	DIGIT127	This course focuses on post-production process using the common tools found in a digital editing environment	5
Digital Media	DIGIT	DIGIT130	This course focuses on the post-production editing process using the common processes found in a digital editing environment	3
Digital Media	DIGIT	DIGIT131	In this course, students will dive deeper into post-production editing process using the common tools found in a digital editing environment	3
Digital Media	DIGIT	DIGIT132	In the digital media-video course, student will explore the technology, language and engineering that supports the creative process	5

## Course Descriptions • Section 5

### Career Education Programs

Digital Media	DIGIT	DIGIT141	This course focuses on the foundation of the composition method using a graphics and animation program.	5
Digital Media	DIGIT	DIGIT142	In this course, students will explore the gathering process for the composition method using graphic design programs, cameras, scanners, cell phones and tablets	5
Digital Media	DIGIT	DIGIT143	In this course, students will explore 2 dimensional animations, looking at composition, geometric imagery and physical action	5
Digital Media	DIGIT	DIGIT145	This course focuses on the audio related to the video post production process	5
Digital Media	DIGIT	DIGIT152	Students will explore the methods used to create 3D Models for use in VR and Real Time Engines, UV Mapping and Polygon reduction techniques.	5
Digital Media	DIGIT	DIGIT153		0
Digital Media	DIGIT	DIGIT154	Students will explore the Vray rendering engine and learn how to use Vray Lights, Materials and Global Illumination techniques and tweaks to produce an interior render.	5
Digital Media	DIGIT	DIGIT155	Students will learn about the different types of 3D Printing technology, the materials used and the workflow to download, import, slice and print a 3D model.	4
Digital Media	DIGIT	DIGIT210	In the pre-production project I course, students will design, develop, script and plan a digital media project	5
Digital Media	DIGIT	DIGIT211	In the production process project I course, students will edit digital elements together into a finished project with meaning and aesthetics	5
Digital Media	DIGIT	DIGIT212	In the post-production project I course, students will edit digital elements together into a finished project with meaning and aesthetics	5
Digital Media	DIGIT	DIGIT220	In the pre-production project II course, students will design, develop, script and plan a digital media project	5
Digital Media	DIGIT	DIGIT221	In the production process project II course, students will design, develop, script and plan a digital media project	5
Digital Media	DIGIT	DIGIT222	In the post-production project II course, students will edit digital elements together into a finished project with meaning and aesthetics	5

## Course Descriptions • Section 5

### Career Education Programs

Early Childhood Education	ECE	ECE204	Students spend time in early learning settings practicing and developing teaching skills, planning/implementing/evaluating children’s activities and participating in curriculum planning. Students will observe children using the Ages and Stages Questionnaire (ASQ). Students will schedule and conduct family conferences with their on-site supervisor to practice skills in communicating with families. This practical field experience is based on children ages birth through 3 years old.	2
Early Childhood Education	ECE	ECE207	The application of the profession’s code of ethics and advocacy for children and families is emphasized. Students/Candidates also develop a professional portfolio and create a resource file of professional publications and organizations. (Birth to age 8)	5
Early Childhood Education	ECE	ECE210	Students spend time in a early learning settings practicing and developing teaching skills, planning/implementing/evaluating children’s activities and participating in curriculum planning. Students will observe children using the Ages and Stages Questionnaire (ASQ). Students will schedule and conduct family conferences with their on-site supervisor to practice skills in communicating with families. This practical field experience is based on children ages 3 years to 8 years old.	2
Early Childhood Education	ECE	ECE211	Demonstrate knowledge of factors that affect the healthy emotional and social development of children, the support of children’s self concept, effects of an individual’s temperament on adult/child and child/child relationships, social/emotional milestones, and activities that support pro-social behavior.	3
Early Childhood Education	ECE	ECE212	Students will demonstrate knowledge of learning styles; identify milestones in development of cognitive skills, and create/demonstrate/evaluate cognitive development activities. Students will develop tools to support developmentally appropriate practices (DAP) and culturally, linguistically, and ability diverse (CLAD) children. Students will practice using inquiry methods in the development of science, technology, engineering and mathematical activities to encourage cognitive development.	5

## Course Descriptions • Section 5

### Career Education Programs

Early Childhood Education	ECE	ECE213	This course addresses the importance of high quality and meaningful creative expression across the early childhood curriculum. Students will develop teaching strategies to support creativity, plan and implement developmentally appropriate creative activities, and explore the development of art in young children birth to age 8.	5
Early Childhood Education	ECE	ECE296	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. *INSTRUCTOR APPROVAL REQUIRED	13
Early Childhood Education	ECE	ECED&105	Explore the foundations of early childhood education. Examine theories defining the field, issues and trends, best practices, and program models. Observe children, professionals, and programs in action (Birth to age 8).	5
Early Childhood Education	ECE	ECED&107	Develop knowledge and skills to ensure good health, nutrition and safety of children in group care and educational programs for age's birth to eight. Recognize the signs of abuse and neglect, responsibilities for mandated reporting, and available community programs.	5
Early Childhood Education	ECE	ECED&120	In an early learning setting apply best practice for engaging in nurturing relationships with children. Focus on keeping children healthy and safe while promoting growth and development. (Birth to age 8)	2
Early Childhood Education	ECE	ECED&132	Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally relevant care (Birth to 3 years of age).	3
Early Childhood Education	ECE	ECED&134	Learn the basics of home/family child care program management. Topics include: licensing requirements; business management; relationship building; health, safety, & nutrition; guiding behavior and; promoting growth & development. (Birth to grade 6)	3

## Course Descriptions • Section 5

### Career Education Programs

Early Childhood Education	ECE	ECED&136	Develop skills to provide developmentally appropriate and culturally relevant activities and care, specifically: preparing the environment, implementing curriculum, building relationships, guiding academic /social skill development, and community outreach.	3
Early Childhood Education	ECE	ECED&139	Develop administrative skills required to develop, open, operate, manage, and assess early childhood education and care programs. Explore techniques and resources available for Washington State licensing and NAEYC standard compliance (Birth to grade 6).	3
Early Childhood Education	ECE	ECED&160	Investigate learning theory, program planning, and tools for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in young children (Birth to age 8).	5
Early Childhood Education	ECE	ECED&170	Design, evaluate, and improve indoor and outdoor environments which ensure quality learning, nurturing experiences, and optimize the development of young children (Birth to age 8).	3
Early Childhood Education	ECE	ECED&180	Develop teaching strategies for language acquisition and literacy skill development at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading.	3
Early Childhood Education	ECE	ECED&190	Collect and record observation of and assessment data on young children in order to plan for and support the child, family and community. Practice reflection techniques, summarizing conclusions and communicating findings	3
Early Childhood Education	ECE	EDUC&115	Build a functional understanding of the foundation of child development, prenatal to early adolescence. Observe and document physical, social, emotional and cognitive development of children, reflective of cross cultural and global perspectives.(Birth to age 8)	5
Early Childhood Education	ECE	EDUC&130	Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences.	3

## Course Descriptions • Section 5

### Career Education Programs

Early Childhood Education	ECE	EDUC&150	Integrate the family and community contexts in which a child develops. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their child, and tools for effective communication.	3
Early Childhood Education	ECE	EDUC&203	An introductory course in understanding educational programs and state and federal laws regarding the education of children with special needs. Working with the child, family, and supportive community/educational agencies and the implications of the American's with Disabilities Act (ADA) for Early Education Programs is also included. (Birth to age 8).	3
Electrical Construction	ELCON	ELCON101	This course is an introduction to the Electrical Construction field. Occupationally specific safety guidelines and standards are emphasized	3
Electrical Construction	ELCON	ELCON102	Introduction to the physical sciences as they apply to the electrical field: electrical theory, Ohms law and the relation of current, resistance and voltage	5
Electrical Construction	ELCON	ELCON103	Students are introduced to tools, equipment and processes common to the electrical industry. The safe operation and care of hand and power tools is emphasized	4
Electrical Construction	ELCON	ELCON104	Students install basic service components. Students will install load centers, over current protection devices and terminate wires	4
Electrical Construction	ELCON	ELCON105	Students select the proper size load centers, conductor sizes for the load centers and select the proper size over current protective devices needed	4
Electrical Construction	ELCON	ELCON106	This is an introduction to the field of residential wiring methods, materials and basic techniques needed for residential wiring	3
Electrical Construction	ELCON	ELCON107	The national electric code and its application to the safe installation of electrical conductors, devices and utilization equipment	4
Electrical Construction	ELCON	ELCON108	This course offers a comprehensive study of NFPA 70E Standards and its safety application to the electrical field	4
Electrical Construction	ELCON	ELCON109	Practical application of National and regional electrical codes as they apply to residential buildings	3
Electrical Construction	ELCON	ELCON110	This is a continuation of ELCON 106 learned concepts. An advanced class on residential wiring techniques such as advanced planning, conductor sizing, special tool usage, the electrical bidding permitting process	3

## Course Descriptions • Section 5

### Career Education Programs

Electrical Construction	ELCON	ELCON111	In this course students apply basic troubleshooting techniques used in residential buildings	3
Electrical Construction	ELCON	ELCON112	This course introduces students to basic concepts of blueprint reading with emphasis on terminology, symbols, and lines commonly found on electrical schematics and plans	3
Electrical Construction	ELCON	ELCON113	A continuation of the concepts introduced in ELCON 112, students learn to interpret prints found in a set of construction drawings and understand their relationship to various electrical installations	5
Electrical Construction	ELCON	ELCON114	At the completion of this course students will learn about applying the NEC to Photovoltaic Designs and the basic principles of wireless components, Energy Management systems, and Green Wiring practices in Residential installations.	5
Electrical Construction	ELCON	ELCON201	Students operate common electrical field specialty tools including a variety of power tools, testing and measurement equipment, and commercial and industrial equipment	4
Electrical Construction	ELCON	ELCON202	This course is an introduction to Commercial wiring	3
Electrical Construction	ELCON	ELCON203	Students learn the basic national and local electrical codes pertaining to commercial buildings.	3
Electrical Construction	ELCON	ELCON204	This course is an introduction to commercial specific construction materials	3
Electrical Construction	ELCON	ELCON205	Installation standards specific to commercial buildings	3
Electrical Construction	ELCON	ELCON206	This course is an introduction to the field of Industrial wiring	3
Electrical Construction	ELCON	ELCON207	This course introduces students to industrial specific construction materials	3
Electrical Construction	ELCON	ELCON208	This course is an introduction to Installation standards specific to industrial standards	3
Electrical Construction	ELCON	ELCON209	Students are introduced to industrial specific safety hazards and techniques to avoid them	3
Electrical Construction	ELCON	ELCON210	Introduction to electrical motors and the various ways motors are started, stopped and controlled for electrical installations	4
Electrical Construction	ELCON	ELCON211	Basics of jobsite estimation including material estimation, labor and time management	5
Electrical Construction	ELCON	ELCON212	Students replicate how and why various ways motors can be controlled.	3
Electrical Construction	ELCON	ELCON213	In this course students replicate techniques to build wire and troubleshoot various motors	3
Electrical Construction	ELCON	ELCON214	Students follow basic knowledge of electrical transformers, why they are needed, how to install them and basic working knowledge of electrical transformation	3

## Course Descriptions • Section 5

### Career Education Programs

Electrical Construction	ELCON	ELCON215	This course covers advanced techniques to motor control such as variable frequency drives and programmable logic.	3
Electrical Construction	ELCON	ELCON216	At the completion of this course students will be able to apply the NEC to Photovoltaic Designs and the basic principles of wireless components, Energy Management systems, and Green Wiring practices in Commercial installations.	4
Electrical Construction	ELCON	ELCON220	Students have the opportunity to work independently on an electrical construction project that is determined by both the instructor and student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	10
Electrical Construction	ELCON	ELCON221	Students have the opportunity to work independently on an electrical construction project that is determined by both the instructor and student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	10
Electrical Construction	ELCON	ELCON222	Students have the opportunity to work independently on an electrical construction project that is determined by both the instructor and student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	10
Electrical Construction	ELCON	ELCON223	Students have the opportunity to work independently on an electrical construction project that is determined by both the instructor and student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	10
Electrical Engineering Technology	ETRIC	AMATH170	This course is a modular web-enhanced progression of foundational mathematical concepts and computation: skills required for success in engineering technology fields of study. Math concepts are taught using STEM field contextual basis. Successful completion of this course is equivalent to completion of intermediate algebra and meets the pre-requisites for math courses requiring a MATH 098 Pre-requisite. Pre-requisite: MATH087 or qualifying compass or CASA scores equivalent to MATH092.	5

## Course Descriptions • Section 5

### Career Education Programs

Electrical Engineering Technology	ETRIC	CS&141	This course focuses on using the Java programming language to teach basic programming and concepts including procedural programming (methods, parameters, return values), basic control structures (sequence, if/else, for loop, while loop), file processing, arrays and an introduction to defining objects	5
Electrical Engineering Technology	ETRIC	ENGR&111	This course is designed for students enrolled in an engineering program who need to learn the basic concepts of engineering graphics. Topics include two dimensional CAD use of lettering, scale, geometric construction, drawing layout, orthographic or multiview drawings and dimensioning. This course also introduces the concepts of 3-D Computer aided Drafting (CAD) solid modeling design and its application to engineering drawing.	5
Electrical Engineering Technology	ETRIC	ENGR&112	This course is an introduction to basic dimensioning techniques using mechanical orthographic, architectural plans, and civil plat drawings. Students will create manufacturing and construction drawings using industry level dimensioning techniques relating to mechanical architectural and civil disciplines applying ASME and AIA standards. This course also introduces the concepts of 2D and 3D Computer Aided Design (CAD) and its application to engineering drawing. AMATH 170 (as pre or corequisite), ENGR&111 (as a pre or corequisite), or instructor permission.	5
Electrical Engineering Technology	ETRIC	ENGR&214	A fundamental course in the mechanics of rigid bodies in static equilibrium conditions. Solves practical engineering problems involving the loads carried by structural components using Static principles, vector notation and calculus for mathematical modeling. Teaches principles and their limitations within the context of Engineering applications and the engineering design process. Students must take MATH&153 (as pre or corequisite), PHYS&223 (as a pre or corequisite), or instructor permission.	5

## Course Descriptions • Section 5

### Career Education Programs

Electrical Engineering Technology	ETRIC	ENGR191	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the first quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. College navigation topics, including financial aid, workforce funding, childcare, library services. Soft skill topics of "coping with pressure" and "decision making".	1
Electrical Engineering Technology	ETRIC	ENGR192	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the second quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Create a social media profile that is geared towards employment. Soft skill topics of "drive for excellent results" and "cooperative teamwork"	1
Electrical Engineering Technology	ETRIC	ENGR193	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the third quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Cover letters, resume, and related employment documents prepared. Complete mock interviews and receive feedback. Soft skill topics of "initiative" and "flexibility".	1
Electrical Engineering Technology	ETRIC	ENGR194	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the fourth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Apply for internships, attend local networking or Online gatherings. Participate in industry related discussions either through discussion groups or social media. Soft skill topics of "influential communication" and "continuous learning".	1

## Course Descriptions • Section 5

### Career Education Programs

Electrical Engineering Technology	ETRIC	ENGR195	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the fifth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Complete applications to transfer colleges or employers. Soft skill topics of "decision-making" and "strategic vision".	1
Electrical Engineering Technology	ETRIC	ENGR196	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the sixth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Use feedback and finalize resumes, cover letters, polished social media presence. Soft skill topics of "planning and organizing" and "integrity and respect".	1
Electrical Engineering Technology	ETRIC	ETRIC114	This course provides an overview of atomic structure, introduction to electrical theory, series, parallel, and series-parallel circuits. Students are introduced to electrical components such as resistors, conductors and how to solve problems using Ohm's Laws.	4
Electrical Engineering Technology	ETRIC	ETRIC123	This course is an introduction to basic electronic principles including the vocabulary of electronics, processes, and principles. Magnetism, batteries, meters, and AC/DC principles are studied. Problems with conductors, insulators, and voltage drops are solved. Series, parallel, and combination circuits are explored.	4
Electrical Engineering Technology	ETRIC	ETRIC129	Principles of inductance, capacitance, and impedance are studied. Students are introduced to transformers and power supplies. Solid state currents, devices, and logic are studied.	4
Electrical Engineering Technology	ETRIC	ETRIC141	The course is an introduction to the National Electric Code including terminology, definitions, format and blueprint reading. Basic electrical codes for various building classifications are covered. Wiring methods and materials, protective devices, selection, and sizing of conduit and conductors are also included.	3
Electrical Engineering Technology	ETRIC	ETRIC143	Students learn to draw one-line and riser diagrams. Emphasis is placed on selection and application of wire sizes, over-current protection, raceways, and equipment.	3

## Course Descriptions • Section 5

### Career Education Programs

Electrical Engineering Technology	ETRIC	ETRIC144	Requirements of overload and fault current protections are studied. Branch circuits and feeders for motors and general power loads are selected in accordance with codes. Grounding and bonding requirements are covered.	4
Electrical Engineering Technology	ETRIC	ETRIC145	Students learn written and oral communication techniques to express technical information in engineering. The development of writing skills necessary to plan and write technical formatted documents is emphasized. Students also develop resumes and cover letters.	3
Electrical Engineering Technology	ETRIC	ETRIC146	Students learn properties of light, sound, temperature and heat transfer as they relate to the electronics industry.	3
Electrical Engineering Technology	ETRIC	ETRIC171	This course focuses on electronic formulas and solutions. Resistance of wires, types, and sizes are applied to voltage drop calculations, transformers, and meter movements	4
Electrical Engineering Technology	ETRIC	ETRIC172	Application of math concepts to engineering problems in electrical circuits, power efficiency, wire sizing, and grounding is emphasized. Problems in inductance, capacitance, and impedance are solved. Transformers are studied and three-phase calculations are performed. Logic control concepts and solid state circuits are introduced.	4
Electrical Engineering Technology	ETRIC	ETRIC204	This course is an introduction to the basic principles of electrical system design including project budgets, organization and scheduling. Sheet layout and drawing order are determined. Preliminary lighting calculations are performed and preliminary electrical drawings are made.	2
Electrical Engineering Technology	ETRIC	ETRIC205	Lighting design, color rendition, efficiency of sources, aesthetic appeal and photometric performance of fixtures are emphasized.	3
Electrical Engineering Technology	ETRIC	ETRIC206	Low-voltage systems are covered to include fire alarm systems, security systems, voice systems, data components and layouts for each system.	2
Electrical Engineering Technology	ETRIC	ETRIC207	An introduction to transmission and distribution systems. specialized equipment is introduced such as motor and other devices. Load calculations are performed for primary voltage systems.	3
Electrical Engineering Technology	ETRIC	ETRIC210	Students learn system and equipment grounding, conduit types, and raceway types. Emphasis is placed on wire selection and application, overcurrent devices, and equipment selection.	4

## Course Descriptions • Section 5

### Career Education Programs

Electrical Engineering Technology	ETRIC	ETRIC225	CAD systems are used to produce engineering drawings using layers, masks, and groups. symbols and x-references are applied. Students learn layout and circuiting of basic power devices.	3
Electrical Engineering Technology	ETRIC	ETRIC227	Commercial project development, design team concepts, timelines, and sequence of design are emphasized. Students learn layout and circuiting of basic power devices. Luminaries are compared and selected.	4
Electrical Engineering Technology	ETRIC	ETRIC230	The focus is on three-phase loads and includes calculation and circuiting of heating equipment and motor loads. Project design teams are organized to select and draft lighting fixtures and controls, power distribution equipment and circuiting.	5
Electrical Engineering Technology	ETRIC	ETRIC234	CAD is used to draw electrical diagrams and schedules. Students learn how to read floor plans, plot plans, elevations, power, lighting plans and make changes as necessary. Interpretation of symbols, notes, and legends are learned.	4
Electrical Engineering Technology	ETRIC	ETRIC242	An introduction electrical wiring concepts and current cost estimating practices. Emphasis is placed on elements of electrical construction, competitive bidding, complete and accurate materials take-offs. Various forms and formats are introduced for a detailed and attractive bid.	2
Electrical Engineering Technology	ETRIC	ETRIC245	Assist project design teams to draft and design electrical, power systems, and distribution equipment. Power generation and distribution techniques. Select lighting designs and complete all necessary calculations for circuits and panels for developments of schedules.	5
Electrical Engineering Technology	ETRIC	ETRIC246	Student leaders are selected to lead project design teams. the building service is designed and main panels are selected. Students learn how to balance circuits and panel boards. Final load calculations are performed to include with the completed drawing. Dry-type and other types of transformers are introduced. Special design factors are incorporated for hazardous locations.	5
Electrical Engineering Technology	ETRIC	ETRIC247	The NEC is studied in depth through student design projects. Code requirements are applied to the design of heating, motor circuits, and feeders. Lighting and controls are specified in accordance with the NEC codes. code compliant service entrance wires and equipment are selected. Specialized codes for Hazardous locations are interpreted and applied.	5

## Course Descriptions • Section 5

### Career Education Programs

Electrical Engineering Technology	ETRIC	ETRIC260	CAD systems, including 3D concepts, are used to produce engineering drawings using layers, masks, and groups. symbols and x-references are applied.	5
Electronic and Communications Systems Technology	ECS	CNST201	The Cisco Networking Academy consists of four blocks. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to the basic internetworking fundamentals.	5
Electronic and Communications Systems Technology	ECS	CNST202	This is the second block of the Cisco Networking Academy. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to routing theory and router technologies	5
Electronic and Communications Systems Technology	ECS	ECS101	This course provides students with knowledge of fundamental electronic systems, quantities, units, and engineering and scientific notation used in the field of electronics. The course provides relevance to circuits and applications and delivers the material via a systems approach combined with electronic theory. Complex arithmetic is not required for this course.	2
Electronic and Communications Systems Technology	ECS	ECS102	This course provides students with knowledge of ohms law, energy, power, series and parallel circuits, and magnetism and electromagnetism. The course provides relevance to circuits and applications and delivers the material via a systems approach combined with electronic theory. Complex arithmetic is not required for this course.	5
Electronic and Communications Systems Technology	ECS	ECS104	This course provides students with knowledge and application of diodes and transistors. The course provides relevance to circuits and applications and delivers the material via a systems approach combined with electronic theory. Complex arithmetic is not required for this course	2
Electronic and Communications Systems Technology	ECS	ECS105	This course provides students with knowledge and application of operational amplifiers and measurement and control devices and circuits. The course provides relevance to circuits and applications and delivers the material via a systems approach combined with electronic theory. Complex arithmetic is not required for this course	3
Electronic and Communications Systems Technology	ECS	ECS108	This course enhances the skills and knowledge of electronics technicians and students in electronics to a level commensurate with success on the Associate Level Certified Electronics Technician exam	3

## Course Descriptions • Section 5

### Career Education Programs

Electronic and Communication Systems Technology	ECS	ECS201	This course provides students with the skills necessary to take and pass industry certification exam for Network Cabling Specialist. Students train in termination, testing and troubleshooting copper based network to include twisted pair and coaxial cabling systems. Instruction includes lecture and lab on various pin, jack and termination block configurations. All construction and testing will conform to industry standards and specifications	5
Electronic and Communication Systems Technology	ECS	ECS202	Applications of fiber optics, including telecommunications, CATV and computer networks, focusing on the technology, the components and their installation are covered in this course. Students utilize fiber specific equipment to learn and apply the fiber technology and perform fiber termination and testing	5
Electronic and Communication Systems Technology	ECS	ECS203	Students prepare for Element 1 of the General Radiotelephone Operator License as issued through the Federal Communications Commission. Element 1 exam consists primarily of basic radio law and operating practices questions. Students who pass Element 1 will receive their Marine Radio Operators Permit	3
Electronic and Communication Systems Technology	ECS	ECS204	Students prepare for Element 3 of the General Radiotelephone Operators License as issued through the Federal Communications Commission. This exam consists of radio, electronic circuits, signals and emissions questions. Students who pass Elements 1 and 3 will receive the GROL License. Students must have knowledge in electronics and electronic communications as a prerequisite to the class	5
Electronic and Communication Systems Technology	ECS	ECS205	This course provides overview of wireless applications, advantages and disadvantages of wireless systems. Introduction to wireless data transmission techniques and standards overview. Simplified, but in-depth look at antennas and their role in successful implementation of a wireless data communications system	2
Electronic and Communication Systems Technology	ECS	ECS206	Personal, short distance area wireless networks for interconnecting devices centered around a workspace or home is explored. WPANs address wireless networking and mobile computing devices such as PC's, PDA's, peripherals, cell phones, pagers and consumer electronics. Short range wireless data communications technologies including, infrared, Bluetooth, and ZigBee, RFid, WiMedia and Ultra wide band are introduced	1

## Course Descriptions • Section 5

### Career Education Programs

Electronic and Communication Systems Technology	ECS	ECS207	This course examines the fundamentals of various 802.11 wireless standards including frequency bands, bandwidth, data rate, and applications. Topics include WLAN components such as NICs, access points, standards, operations and modulation technologies used to enable communication between devices in a limited area	2
Electronic and Communication Systems Technology	ECS	ECS208	The fundamentals of medium and long range wireless communications from infrared free-space optics to WiMax, cellular and satellite technologies are covered in this class. Additional technologies studied include local multipoint and multichannel multipoint distribution services used in high speed Internet access, multimedia file transfer, remote access to local area networks and telephone services	2
Electronic and Communication Systems Technology	ECS	ECS210	Students are introduced to wireless RF communications concepts such as radio wave propagation, wavelength, frequency, bandwidth, and signal analysis	2
Electronic and Communication Systems Technology	ECS	ECS211	Amplitude modulation principles are introduced to RF communications systems. Studies focus on fundamentals of AM transmitters and receivers including measurements with oscilloscope and spectrum analyzer	3
Electronic and Communication Systems Technology	ECS	ECS212	Single sideband and frequency modulation principles are introduced to RF communications systems. Studies include principles of modulation, demodulation, transmitters and receivers	4
Electronic and Communication Systems Technology	ECS	ECS213	No communications system is complete without a media to transmit information. Types of transmission lines discussed are twisted pair, coaxial, ladder line, and waveguides. Curriculum includes principles of electromagnetic propagation, antenna theory, RF radiation and safety	2
Electronic and Communication Systems Technology	ECS	ECS214	This course focus is on microwave, radar communications systems, circuits and transmission methods. Students learn how land line telephone and cell phone systems work. Additional wireless telephony operations to include AMPS, PCS, CDMA, GSM and TDMA	2
Electronic and Communication Systems Technology	ECS	ECS215	Studies include basics of data communications and networking fundamentals and topologies, networking hardware and media, LAN's, MAN's and WANs, the seven-layer OSI model and its application, Internet protocol (IP) and MAC addressing concepts, and additional protocols such as TCP, UDP, DHCP and ARP	2

## Course Descriptions • Section 5

### Career Education Programs

Electronic and Communication Systems Technology	ECS	ECS216	Communications technologies change and advance to meet the desires of an information hungry society. Technologies such as global positioning systems (GPS), fiber optic and laser technology are just some of the methods used to deliver information such as data, video and more which are introduced in this course	2
Electronic and Communication Systems Technology	ECS	ECS230	Students are introduced to telecommunication systems describing the circuits and components contained, including telephone, cellular, and satellite systems and processes. Students will utilize a laptop computer, and a computer aided instruction Online platform to complete training.	2
Electronic and Communication Systems Technology	ECS	ECS231	This lab class teaches the theory of operation, troubleshooting, and repair of standard AM/FM broadcast band receivers and AM/SSB/NBFM communications transceivers. Students will utilize laptop computer, computer aided instruction Online platform, electronic experiment cards and industry recognized test equipment to complete training.	3
Electronic and Communication Systems Technology	ECS	ECS232	Students are introduced to microwave systems, waveguide theory, microwave devices and antennas. Students will utilize laptop computer, computer aided instruction Online platform, electronic experiment cards, antennas, waveguide and reflectors, and industry recognized test equipment to complete training.	2
Electronic and Communication Systems Technology	ECS	ECS233	This lab class teaches the theory of operation, troubleshooting, and repair of various signal processing and modulation techniques to include Time Division Multiplexing, Pulse Code Modulation, Frequency Division Multiplexing, Frequency Shift Keying Modulation and Phase Shift Keying Modulation. Students will utilize laptop computer, computer aided instruction Online platform, electronic experiment cards and industry recognized test equipment to complete training.	4
Electronic and Communication Systems Technology	ECS	ECS249	This course his course is a practical guide to resume preparation and job search. Students will complete various job preparation/job search assignments including a descriptive summary, resumes, cover letter, performance planner, and review questions likely to be asked at an interview.	3

## Course Descriptions • Section 5

### Career Education Programs

Electronic and Communication Systems Technology	ECS	ECS290	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Electronic and Communication Systems Technology	ECS	ECS291	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Electronic and Communication Systems Technology	ECS	ECS296	Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.	9
Electronic and Communication Systems Technology	ECS	ETECH103	This course provides students with knowledge of alternating current and voltage, capacitors. Capacitive circuits, inductors, inductive circuits, resonance, transformers and reactive circuits. The course provides relevance to circuits and applications and delivers the material via a systems approach combined with electronic theory. Complex arithmetic is not required for this course.	5
Electronic and Communication Systems Technology	ECS	ETECH105	This course provides students with knowledge and application of digital principles and circuits. The purpose of the course is to teach principles of digital electronics. The material covers a variety of topics including Boolean algebra, basic gates, logic circuits, flip-flops, registers, arithmetic circuits, counters, interfacing with analog devices, and computer memory. Complex arithmetic is not required for this course	5
Electronic and Communication Systems Technology	ECS	ETECH106	The course is an introduction to the fundamentals of microcontroller-based systems, including applications, architecture, number systems, and languages	5
Electronic and Communication Systems Technology	ECS	INFO101	Demonstrate essential skills using core Microsoft Office applications. Create and edit documents using word processing, spreadsheet, presentation, database, email, or other business applications.	5

## Course Descriptions • Section 5

### Career Education Programs

Electronic and Communication Systems Technology	ECS	INFO104	Provides a foundation in hardware, software, basic networking, safety, and customer service skills. Acquire the essential skills and information to install, configure, optimize, troubleshoot and repair, upgrade and perform preventive maintenance of computers and mobile devices. This is course covers one of two CompTIA A+ certification exams. Passing a professional IT certification requires many addition hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Electronic and Communication Systems Technology	ECS	INFO105	Install, configure and upgrade, diagnose and troubleshoot, perform preventive maintenance, in operating systems, system software, virtualization and cloud concepts. This is course covers one of two CompTIA A+ certification exams. Passing a professional IT certification requires many addition hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Electronic Equipment Service Technology	EEST	BMST105	In this course students safely use and operate a variety of ancillary test equipment. Students receive lecture and lab training as well as hands on experience with actual equipment.	5
Electronic Equipment Service Technology	EEST	BMST106	This course covers most aspects of soldering, a basic requirement in electronic assembly and repair. Types of solder and systems as well as application and removal of solder and good soldering practices are emphasized.	2
Electronic Equipment Service Technology	EEST	BMST107	This course covers the process of drawing schematics/block diagrams, read and plan diagnostic procedures, and use a five-step troubleshooting/servicing format.	3
Electronic Equipment Service Technology	EEST	BMST109	This introduction course prepares students to manage and repair shop projects. Projects may include preventive maintenance, installation, testing, calibration, and repair of various types of equipment.	3
Electronic Equipment Service Technology	EEST	BMST110	This is a continuance course for students to manage and repair shop projects. Projects may include preventive maintenance, installation, testing, calibration, and repair of various types of equipment.	2

## Course Descriptions • Section 5

### Career Education Programs

Electronic Equipment Service Technology	EEST	EEST101	This course is an introduction to safety practices required when working in the electronic equipment environment. It also provides electrical safety for high power devices and safety in electronics assembly and working in the electronic equipment industry.	4
Electronic Equipment Service Technology	EEST	EEST102	This course is an introduction to mathematical theory and applications as they relate to the electronic circuits and the electronic equipment field. The math involves algebra, trigonometry, complex numbers, and number systems such as engineering notation.	4
Electronic Equipment Service Technology	EEST	EEST103	This course is an introduction to the theory and fundamentals of basic DC electronic circuits. Basic DC principles, principles of electricity, components, circuit measurements, electronic equipment such as oscilloscopes, multimeters, waveform generators, and DC power supplies.	5
Electronic Equipment Service Technology	EEST	EEST104	This course is an introduction to the theory and fundamentals of basic DC electronic circuits with the use of electronic measurement and lab procedures. Topics include Ohm's law, series and parallel circuits, circuit analysis techniques, and magnetism. We use MultiSim software as part of the lab assignments along with using proto board to build DC circuits	4
Electronic Equipment Service Technology	EEST	EEST105	This course is an introduction to the theory and fundamentals of basic AC electronic circuits with the use of electronic measurement and lab procedures. Topics include measurement of AC circuits, inductors and transformers, RL circuits, capacitors, RC circuits, RLC circuits, and frequency response and passive filters. Lab assignments include building AC circuits using function generators with passive components and using simulation software to build circuits	5
Electronic Equipment Service Technology	EEST	EEST106	This course is an introduction to the theory and fundamentals of the reactance of the inductor and the capacitor in the AC circuit. Introduction to vectors, complex numbers, resistive-inductive, resistive-capacitive, and resistive-inductive-capacitive circuits. It also covers inductive-capacitive circuit and resonance circuits.	4

## Course Descriptions • Section 5

### Career Education Programs

Electronic Equipment Service Technology	EEST	EEST107	This course is an introduction to the theory and fundamentals of basic AC electronic circuits as it applies to Ohm's Law and the understanding of basic transformer operation. Topics include measurement of AC circuits, inductors and transformers, RL circuits, capacitors, RC circuits, RLC circuits, and frequency response, and passive filters. This course also covers RL and RC circuit for pulse response and time constants.	5
Electronic Equipment Service Technology	EEST	EEST108	This course is an introduction to the theory and fundamentals of basic amplifiers and transistors. Topics include diodes, operation and biasing circuits, BJT amplifiers including types of amplifiers, Class A and B amplifiers, FET amplifiers including JFET, MOSFET, CMOS amplifiers.	4
Electronic Equipment Service Technology	EEST	EEST109	This course is an introduction to the theory and fundamentals of basic electronic devices: such as Diodes, Transistors, SCR, Triac, and FET. Other devices such as operational amplifiers, active filters, oscillators, switching circuits, voltage regulators, thyristors are also covered.	4
Electronic Equipment Service Technology	EEST	EEST110	This course is an introduction to the theory and fundamentals of programmable logic controllers with emphasis on applying and using ladder logic programming. Topics include hardware components, number systems, fundamentals of logic, basic PLC programming using ladder logic, timer & counter instructions, control instructions, data manipulation & math instructions, sequencer & shift register instructions. Lab includes using Allen-Bradley MicroLogicx 1000 to build ladder logic programs to perform basic tasks.	5
Electronic Equipment Service Technology	EEST	EEST206	This course is an introduction and an exploration of emerging technology for example; the internet of things, augmented reality, brain interfaces, microchip implant, magnetic refrigeration, wireless charging, among others. Course content may vary according to technology advances. Students will choose their topic of interest for a research and presentation project.	3
Electronic Equipment Service Technology	EEST	EEST207	This course is an introduction to the theory and fundamentals of networking including IP addressing, network architectures, layers, and protocols.	5
Electronic Equipment Service Technology	EEST	EEST208	This course is an introduction to the theory and fundamentals of embedded controllers using PIC or other processors and C programming language.	5

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### Career Education Programs

Electronic Equipment Service Technology	EEST	EEST210	This course offers students an opportunity to work on a final project that is a culmination of the theory presented during the student time in the program. The project is determined by both the instructor and student and should result in the achievement of advanced learning in the subject area chosen.	5
Electronic Equipment Service Technology	EEST	EEST221	This course is an introduction to the theory and fundamentals of RFID Technology. Topics include RFID system lifecycle, frequency ranges, antennas, tags and interrogators and applications	4
Electronic Equipment Service Technology	EEST	EEST222	This course is an introduction to the theory and fundamentals of Fiber Optics, Electronic Communications and basic antenna systems.	5
Electronic Equipment Service Technology	EEST	EEST223	This course is an introduction to the theory and fundamentals of digital systems including number systems, Boolean algebra, combinational logic, and digital logic.	5
Electronic Equipment Service Technology	EEST	EEST224	This course is an introduction to the theory and fundamentals of Wireless Communications including modulation techniques, error correcting codes, cellular systems, and wireless LAN.	4
Electronic Equipment Service Technology	EEST	EEST225	This course is an introduction to the theory and fundamentals of Microprocessors including digital signal processing and conversion methods.	4
Electronic Equipment Service Technology	EEST	EEST291	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	13
Electronic Equipment Service Technology	EEST	EEST292	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project I.	5
Electronic Equipment Service Technology	EEST	EEST293	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project II.	5

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Electronic Equipment Service Technology	EEST	EEST294	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project III.	5
Electronic Equipment Service Technology	EEST	EEST296	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Electronic Equipment Service Technology	EEST	EEST297	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	2
Facilities Maintenance Engineer	FACM	FACM101	This course is an introduction to the safety practices and procedures as required by state and federal standards for building maintenance	3
Facilities Maintenance Engineer	FACM	FACM102	This course is an introduction to the fundamentals of electricity and their application to the building maintenance industry: Ohm's law, basic circuitry fundamentals, electrical troubleshooting and the National Electrical Codes are studied	3
Facilities Maintenance Engineer	FACM	FACM103	Students troubleshoot, test, maintain, and repair electrical services within a building. Electric motors, controls, PLCs, and test equipment are studied	4
Facilities Maintenance Engineer	FACM	FACM104	Students read, interpret, and create graphic drawings including building and machine blueprints, technical sketching, and working drawings. Trade math is also studied	5
Facilities Maintenance Engineer	FACM	FACM105	A continuation of the concepts introduced in FACM 104, students creates commercial plans: plot, floor, elevation, sections, and plan details	4

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Facilities Maintenance Engineer	FACM	FACM106	This course is an introduction to basic fluid power, and the application of hydraulic principles to the building maintenance field. Hydraulic systems, circuits, and efficiency are studied	5
Facilities Maintenance Engineer	FACM	FACM107	This course is an introduction to industrial maintenance of machine components including predictive and preventive maintenance, lubrication requirements, vibration analysis, and close tolerance dimensioning	5
Facilities Maintenance Engineer	FACM	FACM108	Students follow processes used to maintain centrifugal, rotary, and reciprocating pumps, gears, and compressors, and other mechanical devices. Maintenance scheduling, computerized maintenance management systems and computer-generated repair strategies are studied	5
Facilities Maintenance Engineer	FACM	FACM109	This course is an introduction to the tools and equipment used in the building maintenance occupation. The safe use, maintenance, and storage of a variety of tools and equipment are emphasized. Stationary, hand, and power tools are used	3
Facilities Maintenance Engineer	FACM	FACM111	The maintenance, repair, and minor remodeling techniques for structures and the non-mechanical elements of a building complex are emphasized. Doors, windows, stairs, walls, siding, roofing and all other aspects of building maintenance are discussed	5
Facilities Maintenance Engineer	FACM	FACM112	This course is an introduction to basic refrigeration cycles and components. Mechanical compression systems, absorption systems and troubleshooting techniques are discussed	4
Facilities Maintenance Engineer	FACM	FACM113	Students are introduced to the basic maintenance and repair methods used in the building maintenance profession	3
Facilities Maintenance Engineer	FACM	FACM121	Students select and use proper equipment for maintaining turf, shrubs, and plants. Irrigation system design, installation and repair, basic asphalt and concrete maintenance are studied	5
Facilities Maintenance Engineer	FACM	FACM122	This course is an introduction to the fundamentals of heating and air conditioning systems with emphasis on the adjustment of air flow, indoor air quality, troubleshooting of minor problems, and preventive maintenance methods are studied	4
Facilities Maintenance Engineer	FACM	FACM140	This course is an introduction to the basic principles of low and high-pressure steam boiler systems with emphasis on routine operation, maintenance, and emergency procedures. Upon successful completion of the coursework, students may test for certification as a Class V Boiler Operator/Fireman	12

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### Career Education Programs

Facilities Maintenance Engineer	FACM	FACM143	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student to be viable and industry related. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	10
Facilities Maintenance Engineer	FACM	FACM144	Students follow advanced boiler methods of low and high-pressure steam boiler systems with emphasis on routine operation, maintenance, and emergency procedures. Upon successful completion of the coursework, students may test for certification as a Class IV Boiler Operator/Fireman	5
Facilities Maintenance Engineer	FACM	FACM221	Students review light residential and commercial design and remodeling methods including the bidding process. Energy auditing, building code requirements, deconstruction, sustainable retrofit and updates to the building environment are researched	3
Facilities Maintenance Engineer	FACM	FACM222	Students review light residential and commercial design and remodeling methods including the bidding process. Energy auditing, building code requirements, retrofit, and updating the built environment are researched	4
Facilities Maintenance Engineer	FACM	FACM230	Students are introduced to the use of computers in maintenance management with the use of basic computer programs	2
Facilities Maintenance Engineer	FACM	FACM231	Students create preventive maintenance schedules using a spreadsheet application with mainstream applications utilized by maintenance technicians. Students use common programs for research, cost analysis, scheduling, tracking and reporting. They also use common computer applications to communicate, build, and share maintenance-related coursework	4
Facilities Maintenance Engineer	FACM	FACM292	The independent project I course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Facilities Maintenance Engineer	FACM	FACM293	The independent project II course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5

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### Career Education Programs

Facilities Maintenance Engineer	FACM	FACM294	The independent project III course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	5
Facilities Maintenance Engineer	FACM	FACM296	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Facilities Maintenance Engineer	FACM	FACM297	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.	13
Facilities Maintenance Engineer	FACM	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Fire Service	FIRES	FIRES101	This course is an introduction to the history, evolution, organization, and traditions of the fire service	2
Fire Service	FIRES	FIRES102	This course provides a foundation of knowledge regarding the significant risks associated with the fire service and a look at the common causes of injuries and death faced by todays firefighter. This course also provide students information on the various personal protective equipment available to firefighters, and principles of Critical Incident Stress Management	4
Fire Service	FIRES	FIRES103	In this course students apply the theory presented in lecture/lab and demonstrates performance standards	5

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### Career Education Programs

Fire Service	FIRES	FIRES104	Throughout their training, students acquire the physical strength and stamina required of the profession. Each physical fitness course builds upon the levels previously achieved by the student	1
Fire Service	FIRES	FIRES105	This course introduces students to the science of fire: the exothermic oxidation of a combustible substance, fire behavior and suppression methods and how ventilation affects the growth of fire	3
Fire Service	FIRES	FIRES106	This course introduces students to the care, maintenance, and use of fire hose, hose tools, and associated appliances. Students also identify the key components of municipal and rural water supply systems	3
Fire Service	FIRES	FIRES107	Students apply the theory presented in lecture/lab and demonstrate performance standards	5
Fire Service	FIRES	FIRES108	Throughout their training, students acquire the physical strength and stamina required of the profession. Each physical fitness course builds upon the levels previously achieved by the student	1
Fire Service	FIRES	FIRES109	This course covers the various types of portable and mounted ladders used in the fire service. Students' identify the uses of ladders on the fire scene, various methods for placement, and maintenance of ladders while suppression operations are in progress	5
Fire Service	FIRES	FIRES110	During this lesson, students identify how common building materials and construction methods are impacted by fire, how to force entry into a structure or structural components, how to apply loss control knowledge and practices, and how to properly select, use, and correctly maintain portable fire extinguishers	2
Fire Service	FIRES	FIRES111	Students apply the theory presented in lecture/lab and demonstrate performance standards	4
Fire Service	FIRES	FIRES112	Throughout their training, students acquire the physical strength and stamina required of the profession. Each physical fitness course builds upon the levels previously achieved by the student.	1
Fire Service	FIRES	FIRES121	This course introduces students to wild land fire behavior, tactics, the 10 standard fire-fighting orders, and the 18 "watch out" situations found in wild-land situations. The course includes elements of S-130 and S-190, and includes an arduous Pack Test and fire shelter deployment which leads to wild-land Red-Card certification	2
Fire Service	FIRES	FIRES123	In this course students apply the theory presented in lecture/lab and demonstrates performance standards	5

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### Career Education Programs

Fire Service	FIRES	FIRES124	Throughout their training, students acquire the physical strength and stamina required of the profession. Each physical fitness course builds upon the levels previously achieved by the student	1
Fire Service	FIRES	FIRES125	This course provides the Knowledge required for the safe operation and maintenance of emergency vehicles. The proper operation of fire pumps, the roles and responsibilities of the driver/operator, and the theory and principles behind water flow and calculations are included	3
Fire Service	FIRES	FIRES201	Students identify the techniques used to rescue civilians and fire service personnel in various rescue situations, Thermal imaging principles, and the use and care of ropes and webbing	3
Fire Service	FIRES	FIRES202	This course describes the role of a Firefighter I in the development and implementation of fire and life safety programs, external and internal communications, and the investigative process of a fire's cause and origin	3
Fire Service	FIRES	FIRES203	Students apply the theory presented in lecture/lab and demonstrates performance standards	5
Fire Service	FIRES	FIRES204	Throughout their training, students acquire the physical strength and stamina required of the profession. Each physical fitness course builds upon the levels previously achieved by the student	1
Fire Service	FIRES	FIRES206	Students are introduced to emergency service professionals' career ladder structures. They also apply a variety of job search skills necessary to gain employment in the fire service	2
Fire Service	FIRES	FIRES207	Students are introduced to the National Fire Protection Association Incident Management System at the intermediate level (NIMS). Fire Ground Tactics and Strategies are also included	2
Fire Service	FIRES	FIRES208	Students apply the theory presented in lecture/lab and demonstrate performance standards	4
Fire Service	FIRES	FIRES209	The course is designed to provide a wide variety of healthcare professionals the ability to recognize several life-threatening emergencies, provide CPR, use an AED, and relieve choking in a safe, timely, and effective manner. The course is intended for certified or noncertified, licensed or non-licensed healthcare professionals	1
Fire Service	FIRES	FIRES212	Students are introduced to the minimum requirements established by the National Fire Protection Association for Firefighter II certification. Topics to be presented include IMS, foam ops, and auto extrication	4

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### Career Education Programs

Fire Service	FIRES	FIRES213	Throughout their training, students acquire the physical strength and stamina required of the profession. Each physical fitness course builds upon the levels previously achieved by the student	1
Fire Service	FIRES	FIRES215	This course emphasizes the knowledge required to identify NFPA 472 Awareness Level standards for the first responders to hazardous materials incidents. Students define how to use the Emergency Response Guidebook for responders to hazardous materials incidents	1
Fire Service	FIRES	FIRES216	This course emphasizes the knowledge required to identify NFPA 472 Operations Level standards for the first responders to hazardous materials incidents. Students set up decontamination procedures for responders to hazardous materials incidents	2
Fire Service	FIRES	FIRES220	Students apply the theory presented in lecture/lab and demonstrates performance standard	4
Fire Service	FIRES	FIRES222	The student studies the proper operation of fire pumps, the theory, and principles behind water flow and calculations that are applied on the fire ground. Also taught are drafting and fire pump testing as well as foam operations. Completion of Fire Vehicle Operations and Advanced Pump Operations qualify the student to attain IFSAC certification for Driver Operator Pumper	4
Fire Service	FIRES	FIRES225	This course prepares students to meet the requirements for employment as an EMT-B. It adheres to the U.S. Department of Transportation Guidelines and the Washington State Department of Social and Health Services standards	14
Fire Service	FIRES	FIRES230	This course examines strategies decision and tactical operations guiding students through the process of problem identification and solution response.	5
Fire Service	FIRES	FIRES231	This course familiarizes fire service and other interested personnel with the types, arrangements, and operating principles of systems to address fire detection and alarm systems, smoke management systems, water supply, fire pumps, automatic sprinkler systems, standpipe and hose systems, special extinguishing systems, and portable fire extinguishers.	5
Fire Service	FIRES	FIRES232	This course provides basic foundational topics in fire department hydraulics, explaining how and why water is discharged from nozzles at the correct pressures to effectively fight fires	5

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Fire Service	FIRES	FIRES233	This course emphasizes the impact that and understanding of the principles of building construction has on firefighting strategy.	5
Fire Service	FIRES	FIRES234	This course educates students about the principles and techniques of fire prevention and life-style inspection and code compliance.	5
Fire Service	FIRES	FIRES240	Students are introduced to the National Fire Protection Association Standard #1041 “Professional Qualifications for Fire Service Instructors” at the Instructor I level	3
Fire Service	FIRES	FIRES241	Students are introduced to health and safety issues of the Fire Service. Included are risk management; workplace safety; and health, wellness, and safety program	2
Fire Service	FIRES	FIRES242	Students are introduced to the National Fire Protection Association standard 1021 Standard for Fire Officer Professional Qualifications, for Fire Officer I. Organizational Structure, Leadership and Supervision is also included	5
Fire Service	FIRES	FIRES243	Students are introduced to the National Fire Protection Association standard 1021 Standard for Fire Officer Professional Qualifications, for Fire Officer II. Human Resources Management, Fire Origin and Cause Determination is also included	5
Hearing Aid Specialist	HEAR	HEAR110	This course focuses on the role of professionals dealing with hearing healthcare and the role of the hearing aid specialist within the healthcare system. Students investigate the different work settings and delivery models that are available in their desired work community	5
Hearing Aid Specialist	HEAR	HEAR111	This course introduces universal and personal safety hygiene in the hearing clinic as well as state required 4 hours of AIDS/HIV training and blood borne pathogens. Students are expected to comply with personal and universal precautions in the educational and clinical settings.	4
Hearing Aid Specialist	HEAR	HEAR112	Students learn the basics of sound production and sound amplification as it applies to human hearing and the manipulation of sound to improve hearing.	5
Hearing Aid Specialist	HEAR	HEAR113	Students identify key components of patient centered case history and practiced in the classroom setting. Basics of otoscopy and standard pure tone testing are demonstrated and practiced in the classroom	3
Hearing Aid Specialist	HEAR	HEAR120	Normal anatomy and physiology of the human ear and related structures are discussed as it pertains to hearing.	5

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Hearing Aid Specialist	HEAR	HEAR121	This course is designed to introduce the student to the different equipment and tools that are used in the industry and state requirements for maintenance and calibration.	5
Hearing Aid Specialist	HEAR	HEAR122	Prerequisite: Hearing Assessment I; Student will continue to refine techniques learned in Hearing Assessment I. Speech audiometry with effective masking and tympanometry will be demonstrated and practiced in the lab setting.	3
Hearing Aid Specialist	HEAR	HEAR130	Common medical pathologies that affect the ear and hearing are described and discussed with emphasis on otologic conditions that require medical referral by state and federal law	5
Hearing Aid Specialist	HEAR	HEAR131	The history of hearing aids and the development of technology and hearing aid components are discussed. Students learn how different hearing aid technologies can affect patient outcomes. Techniques for making impressions for custom ear molds and hearing aid shells are introduced	5
Hearing Aid Specialist	HEAR	HEAR132	Students practice how to read, record, and explain results of audiometric testing in both professional and lay language. The emphasis is on degree, nature and configuration of hearing thresholds as they appear on the audiogram and how the relationship to the speech signals. The initial process of patient specific recommendations to solve communication difficulties are introduced in this course	5
Hearing Aid Specialist	HEAR	HEAR210	This course is a continuation of Hearing Assessment II. Comprehensive analysis of the decision making process is used to choose appropriate test protocols, interpret results and apply analysis to the recommendation, selection, fit and follow-up of the hearing aids	3
Hearing Aid Specialist	HEAR	HEAR211	This course introduces the concepts of hearing impairment, hearing handicap, and hearing disability. Variables such as co-existing medical conditions, psychological adjustment, cultural values, socio-economic status, and disability are discussed	3
Hearing Aid Specialist	HEAR	HEAR212	This course introduces the different methods of hearing aid distribution, from the holding companies, vendors, retail and private dispensing offices. Students will be exposed to different sales philosophies and the ever changing industry	5

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Hearing Aid Specialist	HEAR	HEAR213	In this course the student will shadow professionals in the field, in the Bates Hearing Clinic, and will begin to interact with patients under direct supervision of the instructor. Activities will depend upon the patient and student needs.	3
Hearing Aid Specialist	HEAR	HEAR220	In this course the student will practice all test procedures needed to recommend, select and dispense a hearing aid. At minimum variables such as patient communication style, hearing loss, degree of perceived handicap, motivation and patient expectations will be considered	5
Hearing Aid Specialist	HEAR	HEAR221	In this course the student will begin to analyze consistency of test results for validity. A variety of counseling and assessment tools to educate and the potential hearing aid patient/family/friends will be introduced and practiced in the lab and during clinical hours.	5
Hearing Aid Specialist	HEAR	HEAR222	A continuation of Hearing Aids I, this course focus is on the electroacoustic analysis of hearing aids, basic programming and verification of hearing aid fit using real ear measures	5
Hearing Aid Specialist	HEAR	HEAR223	All testing performed In Clinical I are continued with the addition of speech audiometry, tympanometry, and other special tests at the in-house hearing clinic or in a work based learning opportunity	3
Hearing Aid Specialist	HEAR	HEAR230	This course concentrates on the maintenance of a functioning hearing aid as well as troubleshooting a non-functioning or distorted hearing aid, programmable solutions, acoustic modifications, and minor office repairs are demonstrated and practiced both in the classroom setting and in the clinical setting	5
Hearing Aid Specialist	HEAR	HEAR231	This class focuses on different validation strategies and counseling tools for the hearing aid user. The student will explore implantable hearing devices and assistive listening devices	4
Hearing Aid Specialist	HEAR	HEAR232	Seminar in business trends, third party payees, legislation and changes in state legislation will be examined and discussed. Student will apply for licensure and familiarize themselves to Washington state Department of Hearing and Speech.	5
Hearing Aid Specialist	HEAR	HEAR233	Clinical III is a continuation of Clinical II. All skills are applied in a full service hearing aid clinic with direct or indirect supervision	4

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### Career Education Programs

Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC101	This course is an introduction to the HVAC industry. It will introduce the student to HVAC history, environmental heating and cooling, food preservation, industry opportunities, professional organizations, useful publications, available certifications and what is required of an employee.	3
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC102	This course focuses on Safety following the OSHA and WISHA procedures and regulations are presented. Students complete the Washington State Industrial First Aid/CPR program. The use of personal protection equipment and safe work practices are demonstrated.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC103	This course will cover the importance of the properties of matter, laws of conservation of energy, energy conversion and electrical distribution. Temperature measurement and conversion, thermodynamics, pressures and vacuums are presented.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC104	This course focuses on the proper use of hand tools, fasteners, electrical, refrigeration and heating test instrument and servicing equipment.	4
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC105	In this course students study refrigeration system components and operation, refrigeration cycle, compressors, condenser, metering devices and evaporators.	4
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC106	This course is a continuation of the concepts introduced in HVAC105. Students learn refrigerant properties, system piping, accessing sealed systems, refrigerant management, system evacuation and charging.	3

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**Career Education Programs**

Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC107	In this course, students will study basic electricity, power, circuits, electric motors, electrical components, diagrams and controls.	5
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC108	In this course, students will apply basic electricity, power, circuits, electric motors, electrical components, diagrams and controls reviewed in HVAC107 troubleshooting electrical problems in the lab.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC109	In this course, students apply techniques of heat bonding copper tubing and dissimilar materials using soft solder and brazing allows common to the HVAC industry.	3
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC110	This course is an introduction to unitary systems split systems, and the arrangement, placement and matching of equipment. Students troubleshoot residential cooling and heating equipment.	5
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC111	This course is a continuation of the concepts introduced in HVAC110, students review unitary and split air conditioning and heating equipment used in light commercial applications. Oil heating equipment is also presented.	5
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC112	This course is a continuation of the concepts introduced in HVAC110 and HVAC111. This course is an introduction to electric heating equipment, heat pump components, applications and troubleshooting.	4

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### Career Education Programs

Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC150	Introduction to Tools and Fasteners used in the HVAC/R Industry.	1
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC151	The OSHA 30-hour Construction Industry Outreach Training course is a comprehensive safety program designed for anyone involved in general industry. Specifically devised for foremen, and field supervisors; the program provides complete information on OSHA compliance issues. Upon completion, students will be issued an OSHA 30 card. Additional training in Refrigeration Handling and Safety Practices.	4
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC152	This course is designed to provide the basic first aid skills necessary to become a lay responder for varying emergencies, including adult/child/infant CPR with AED. Participants will demonstrate CPR and the use of an automated external defibrillator (AED). Upon successful completion of the course, participants will receive a certificate for Adult/Child/Infant CPR/, AED, Bloodborne Pathogens and First Aid valid for two years.	1
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC154	This course introduces students to basic electric motors and their applications in the HVAC/R industry.	4
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC201	This introduction course focuses on basic building construction, fans, airflow, duct design, installation, zone controls, test and balancing air systems, psychometrics, indoor air quality, filters, humidifiers and residential load calculations.	4
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC206	This course focuses on the components, equipment, and operation for sheet metal layout and fabrication.	2

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### Career Education Programs

Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC207	This course is a continuation of the concepts introduced in HVAC213, students fabricate patterns and join them in a line of fittings.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC208	This course is a continuation of the concepts introduced in HVAC213, students fabricate patterns and join them in a line of fittings.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC209	This course is an introduction to the techniques and procedures used in the residential construction industry to determine proper sizing of HVAC equipment and ducts to meet the requirements for a high-quality, comfortable climate in terms of heating, cooling, humidifying, dehumidifying, ventilation and air cleaning or filtering.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC210	This course provides students with the basics of preparing plans and orthographic and isometric drawings used to create building blueprints. The identification and application of plumbing, electrical, air conditioning, and refrigeration symbols found on mechanical drawings is emphasized.	4
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC211	This course provides students with the knowledge of commercial air conditioning systems, air handlers, accessories, package units and controls.	5
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC212	This course is an introduction to types of chilled water units, purge recovery, compressor arrangement, chiller economizers, oil return systems, and absorption chiller operation.	2

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Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC213	In this course, students identify the uses of common terminal units, types of piping, configuration of multiple systems, motorized controls valves, radiant heating, mixing valves and the circulators used.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC214	This course focuses on the basic types of cooling towers and cooling tower operation and maintenance.	1
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC215	This introduction course focuses on the basic types of cooling towers and cooling tower operation and maintenance.	2
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC216	This course is a precursor to taking the EPA Section 608 Exam. Employee must be certified by the EPA to handle refrigerant under penalty of law. Three types of exam are available: Type I, II, or III. All three require that a core exam also be passed. The minimum requirement for HVAC/R technicians is a Type II.	1
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC217	In this course, students identify high temperature, medium temperature, and low temperature refrigeration systems, food preservation, various types of systems used, and basic principles of operation.	3
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC218	This course is an introduction to installation standards, equipment placement, piping procedures, determining the correct charge, planned maintenance and troubleshooting procedures.	2

## Course Descriptions • Section 5

### Career Education Programs

Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC219	This course is a precursor to taking industry recognized national AHRI Industry Competency Exam (ICE Exam). The three test areas include: Residential Heating and AC, Light Commercial Heating and AC, and Commercial Refrigeration. Completion of one exam of the three exams is required for Support Technician credential and AT Degree.	3
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC220	This course is a precursor to taking industry recognized national AHRI Industry Competency Exam (ICE Exam). The three test areas include: Residential Heating and AC, Light Commercial Heating and AC, and Commercial Refrigeration. Completion of an additional exam is required of AT Degree.	3
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC221	This course is an introduction to the math calculations common to the industry, including algebraic formulas, calculation of angles, areas, and volumes of various geometric shapes and system load calculations.	5
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC292	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project I.	5
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC293	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project emphasis on integration of classroom learning based on prior course work and should result in the achievement of advanced skills in completion of independent project II.	5
Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	HVAC296	This course is Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.	13

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### Career Education Programs

Heating, Ventilation, Air Conditioning and Refrigeration Specialist	HVAC	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Information Technology Specialist	INFO	CNST201	The Cisco Networking Academy consists of four blocks. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to the basic internetworking fundamentals.	5
Information Technology Specialist	INFO	CNST202	This is the second block of the Cisco Networking Academy. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to routing theory and router technologies	5
Information Technology Specialist	INFO	CNST205	This is an introductory course to the Linux environment including file system navigation, file permissions, command line interface, text editor, command shells, and basic network use. The versatility of Linux is explored through the use of a small platform computer.	5
Information Technology Specialist	INFO	CNST207	Server operating systems are the foundation for computer network administration both locally and in the cloud. This course gives the learner an in-depth knowledge of Windows Server identity-related services, including Active Directory, user and group accounts, Group Policy, Active Directory Certificate Services, and advanced identity solutions such as Active Directory Federation Services and Active Directory Rights Management Services. The course helps prepare the learner for one of the three exams required to obtain the Microsoft Certified Solutions Associate (MCSA).	5
Information Technology Specialist	INFO	CNST209	Server operating systems are the foundation for computer network administration both locally and in the cloud. This course gives the learner an in-depth knowledge of Windows Server networking services including TCP/IP, DNS, DHCP, IPAM, remote access, and helps prepare the learner for one of the three exams required to obtain the Microsoft Certified Solutions Associate (MCSA).	5

## Course Descriptions • Section 5

### Career Education Programs

Information Technology Specialist	INFO	CNST212	This is the third block of the Cisco Networking Academy. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students are introduced to advanced routing and switching	5
Information Technology Specialist	INFO	CNST213	This is the fourth block of the Cisco Networking Academy. The course is designed to introduce students to the skills and information needed to design, build, and maintain small to medium-size networks. Students will be introduced to the advanced Cisco networking utilizing project based learning	5
Information Technology Specialist	INFO	CNST214	The Cybersecurity Essentials course covers foundational knowledge in all aspects of security in the cyber world, including information security, systems security, network security, mobile security, physical security, ethics and laws. It builds students' skills in related technologies, procedures, defense and mitigation techniques used in protecting businesses	5
Information Technology Specialist	INFO	CNST218	Server operating systems are the foundation for computer network administration both locally and in the cloud. This course gives you the skills you need to install and configure a Windows Server operating system and helps prepare the learner for one of the three exams required to obtain the Microsoft Certified Solutions Associate (MCSA).	5
Information Technology Specialist	INFO	CNST220	This course covers the fundamentals of building IT infrastructure on the AWS platform. Students learn how to optimize the AWS Cloud by understanding how AWS services fit into cloud-based solutions. In addition, students explore AWS Cloud best practices and design patterns for architecting optimal IT solutions on AWS, and build a variety of infrastructures.	5
Information Technology Specialist	INFO	ECS201	This course provides students with the skills necessary to take and pass industry certification exam for Network Cabling Specialist. Students train in termination, testing and troubleshooting copper based network to include twisted pair and coaxial cabling systems. Instruction includes lecture and lab on various pin, jack and termination block configurations. All construction and testing will conform to industry standards and specifications	5

## Course Descriptions • Section 5

### Career Education Programs

Information Technology Specialist	INFO	ECS202	Applications of fiber optics, including telecommunications, CATV and computer networks, focusing on the technology, the components and their installation are covered in this course. Students utilize fiber specific equipment to learn and apply the fiber technology and perform fiber termination and testing	5
Information Technology Specialist	INFO	ECS249	This course his course is a practical guide to resume preparation and job search. Students will complete various job preparation/job search assignments including a descriptive summary, resumes, cover letter, performance planner, and review questions likely to be asked at an interview.	3
Information Technology Specialist	INFO	INFO101	Demonstrate essential skills using core Microsoft Office applications. Create and edit documents using word processing, spreadsheet, presentation, database, email, or other business applications.	5
Information Technology Specialist	INFO	INFO104	Provides a foundation in hardware, software, basic networking, safety, and customer service skills. Acquire the essential skills and information to install, configure, optimize, troubleshoot and repair, upgrade and perform preventive maintenance of computers and mobile devices. This is course covers one of two CompTIA A+ certification exams. Passing a professional IT certification requires many addition hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Information Technology Specialist	INFO	INFO105	Install, configure and upgrade, diagnose and troubleshoot, perform preventive maintenance, in operating systems, system software, virtualization and cloud concepts. This is course covers one of two CompTIA A+ certification exams. Passing a professional IT certification requires many addition hours of study before and after the course lecture. Expect to spend a significant number of hours studying before you take a CompTIA or any other IT professional certification.	5
Information Technology Specialist	INFO	INFO120	The focus of this course includes to identify requirements and compatibility related to performing installation, upgrade, configure, mitigate of Windows operating systems. Students perform post-installation configurations, connect to a network, configure firewall and troubleshoot network issues. Hands-on practice includes configuring storage, backup and recovery.	5

## Course Descriptions • Section 5

### Career Education Programs

Information Technology Specialist	INFO	INFO121	This course provides instruction in virtualization technologies. This course covers hands-on labs with virtualization tools and concepts. Discussion of topics include using virtualization of software defined for data center environments including building virtual networks, implementing clusters, enhancing performance and security challenges. Using Hyper-V, Oracle VirtualBox, VMware or other virtualization platforms are implemented.	5
Information Technology Specialist	INFO	INFO122	This course covers end-user support concepts and practices. Learn how to develop long-term strategies and capacity planning for meeting future computer hardware needs. Discuss how to practice first-class level of customer service ensuring that all customers are treated efficiently and in an appropriate manner. Learn about the kinds of knowledge, skills, and abilities necessary to find employment in the support industry.	5
Information Technology Specialist	INFO	INFO123	This course covers foundational skills regarding the considerations of adopting cloud services and the Software as a Service (SaaS) cloud model. It provides an overview of cloud computing and services. The focus of this course includes core services, security compliance, privacy, and trust to obtain fundamental skills to manage business cloud services.	5
Information Technology Specialist	INFO	INFO205	The number one concern of computer professionals today continues to be information security. This course covers computer security skills required to identify threats, attacks and vulnerabilities. Hands-on labs include how to use cryptography, security technologies and tools. Learn about risk management, laws and regulations	5
Information Technology Specialist	INFO	INFO206	This course builds a foundation in network security and practices. Analyze and protect networks from malicious attacks and breaches of confidentiality. Identify attack and vulnerability types, and manage auditing and logging. Examine wireless network security, mobile and embedded device security, access management, and risk mitigation.	5

## Course Descriptions • Section 5

### Career Education Programs

Information Technology Specialist	INFO	INFO296	This course is Work-based learning (WBL) allows students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of businesses/industries in the area. The learning activity is based on a written agreement with the participating training provider.*Instructor Approval Required	5
Machinist	MACH	CNCM215	In this course, students use CAM software to program parts from engineering drawings.	5
Machinist	MACH	MACH111	This Introduction course is a self-paced for math concepts to solve problems common to the machining/manufacturing industry	2
Machinist	MACH	MACH117	In this course students will use precision measuring tools such as micrometers, height gages, calipers, gage blocks, and indicators	5
Machinist	MACH	MACH118	This course is an introduction to Geometric Dimensioning and Tolerancing as used in the machine shop environment. Topics presented include symbols, Rule 1 and Rule 2, ANSI Y14.5 and coordinate dimensioning. Position is emphasized.	5
Machinist	MACH	MACH119	This course provides the student with the knowledge and skills to apply advanced dimensioning, tolerancing, practices, and multiple views.	5
Machinist	MACH	MACH120	A continuation of the concepts introduced in MACH 111, students study elementary geometry, trigonometry, and Algebra as they apply to the machine shop. (This course meets the RI-Related Instruction for Computation for the AAS)	5
Machinist	MACH	MACH121	This course is a continuation of the concepts introduced in MACH 114, students apply more advanced turning skills using taper attachment, single point threading, knurling, boring head, and drill grinding	4
Machinist	MACH	MACH122	In this course students conduct set up and use a surface grinder	2
Machinist	MACH	MACH133	This is a introductory course on the basic metallurgy, including physical and mechanical properties of metal	3
Machinist	MACH	MACH134	This course students will demonstrate complex lathe operations	4
Machinist	MACH	MACH137	This advanced machining course requires students to demonstrate complex lathe operations	2

## Course Descriptions • Section 5

### Career Education Programs

Machinist	MACH	MACH142	This course offers students an opportunity to work on a lab-based project. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	8
Machinist	MACH	MACH150	This course is an introduction to the fundamental knowledge of standard steel classification, reading of precision measuring devices, heat treating metals, general shop practices, and inspection techniques in the machine trades. This course is taken concurrently with MACH 155 and MACH 160	5
Machinist	MACH	MACH155	This class is an introduction to develop the skills for process planning, hand operations such as layout, drilling, reaming, sawing, and machine operations such as bandsaw, drill press, and safety standards. This course is taken concurrently with MACH 150 and MACH 160.	5
Machinist	MACH	MACH160	This class is an introduction to conventional machining the majority of this course will occur in the machining lab practicing the basics of chucking applications, milling and lathe setup, operations, and safety standards.	5
Machinist	MACH	MACH213	This advanced course provides students with the opportunity for practice to machine and assemble complex components	5
Machinist	MACH	MACH222	This course requires students to set up and use a computerized numerical control (CNC) lathe	1
Machinist	MACH	MACH224	This course provides the student with expanded knowledge of advanced manual machining concepts	5
Machinist	MACH	MACH225	In this course, students will learn CNC Machine setup, Program editing, Machining and the fundamentals of CNC Lathe Control.	3
Machinist	MACH	MACH230	In this course, students will write CNC lathe and Mill code manually, as well as solve complex complications that derive out of writing CNC code. Learn to setup, operate, and run successful CNC programs on a CNC Lathe and Mill	4
Machinist	MACH	MACH232	This course provides the student with advanced practice associated with CNC machine programs	5
Machinist	MACH	MACH233	This course is a continuation of the concepts introduced in MACH 232, students work on advanced CNC machining project	5

## Course Descriptions • Section 5

### Career Education Programs

Machinist	MACH	MACH292	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen. PREREQUISITE: Instructor permission is required to enroll in this course.	5
Machinist	MACH	MACH293	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen. PREREQUISITE: Instructor permission is required to enroll in this course.	5
Machinist	MACH	MACH294	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen. PREREQUISITE: Instructor permission is required to enroll in this course	5
Machinist	MACH	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Marketing and Business Management	MARK	ACCT&201	An introduction to the concepts and methods underlying the preparation of corporate financial statements using generally accepted accounting principles. Topics covered include the accounting cycle, cash, and receivables.	5
Marketing and Business Management	MARK	ACCT&203	An introduction to the concepts and methods of managerial accounting and how accounting information is essential for management decisions. Topics covered include job costing, activity based costing, inventory management, cost - volume - profit relationships, budgets, short-term business decisions and capital investment decisions	5
Marketing and Business Management	MARK	ACCT207	This course provides hands-on experience and practice in computerized accounting applications (QuickBooks) for small businesses. Use the general ledger, accounts payable, accounts receivable, inventory, invoicing and payroll modules	5
Marketing and Business Management	MARK	MARK101	This course introduces the student to the basic components of marketing goods and services with a focus on the following subject matter: basic consumer needs, creating and implementing a marketing strategy and the study of general marketing principles	5

## Course Descriptions • Section 5

### Career Education Programs

Marketing and Business Management	MARK	MARK102	This course examines the techniques and processes to create a company-wide customer service environment. Students will sharpen their skills in the areas of critical thinking, acquiring and retaining customers, and developing a service-oriented mindset, ensuring customer satisfaction, diffusing unsatisfactory situations and excelling in communication	5
Marketing and Business Management	MARK	MARK103	This class focuses on expressing plans, ideas and other business-based communication in written form. Students will demonstrate the ability to communicate through writing to clients, customers and co-workers at all levels	3
Marketing and Business Management	MARK	MARK104	This course presents a perspective on how to respond and resolve critical conflict through collaborative negotiations with positive results. Included are a variety of methods to establish rapport, trust and reliability, manage conflict in the negotiation process, and how to handle difficult power tactics	3
Marketing and Business Management	MARK	MARK105	The ability to successfully research and acquire relevant information is very important in the competitive world of marketing. This class teaches how to utilize resources and sources to obtain and utilize that information	1
Marketing and Business Management	MARK	MARK106	A wide array of business concepts are explored in this class including entrepreneurship, organizational systems, finance, marketing, management and international business	5
Marketing and Business Management	MARK	MARK107	Students study the concepts of culture and its impact on organizations as they conduct business globally. Topics explored include: intercultural and cross-gender communication, political and economic philosophy, social structure, religion, language and education	5
Marketing and Business Management	MARK	MARK108	This course is an introduction to the key business concepts that individuals and businesses must understand to enhance results in international trade	5
Marketing and Business Management	MARK	MARK109	A study of economics, economic environments, and analysis of the economic factors involving the essentials of demand and supply; competition and monopoly; labor; public policy towards business; and the distribution of income	5
Marketing and Business Management	MARK	MARK110	Basic principles of management and supervision are studied and practiced. Students acquire leadership skills related to working styles, coaching skills, and working effectively with coworkers and subordinates	5

## Course Descriptions • Section 5

### Career Education Programs

Marketing and Business Management	MARK	MARK111	This class researches business organizations that market and sell on the Internet and assesses the impact of e-commerce on business and consumers	5
Marketing and Business Management	MARK	MARK112	This class is designed as an introduction to the legal system and its impact and functions within the business world. Students will study legal reasoning, the process of resolving disputes and contractual agreements in the business community	5
Marketing and Business Management	MARK	MARK113	This course is an introduction to financial accounting principles and management accounting	5
Marketing and Business Management	MARK	MARK121	Students will study the importance and impact of branding techniques and the creation of a corporate identity in marketing products and services	3
Marketing and Business Management	MARK	MARK122	This course explores planning aspects of promotional efforts and creation of effective advertising campaigns including student development of flyers, brochures, newsletters, direct mail packages and media releases	4
Marketing and Business Management	MARK	MARK123	Students will learn to expedite projects and planning efforts utilizing business software applications, helping with efficiency, time management and organization	3
Marketing and Business Management	MARK	MARK124	This course examines the psychology of consumer behavior and use of sales strategies created to enhance consumer behavior in purchasing	5
Marketing and Business Management	MARK	MARK125	Students develop the skills to create and deliver presentations that influence colleagues, clients and other audiences	3
Marketing and Business Management	MARK	MARK126	A general course for developing planning and personnel management skills required for successful sales, marketing and managerial professionals.	5
Marketing and Business Management	MARK	MARK127	This course examines how a firm gains audience exposure through the strategic placement of topics of public interest and news items that do not require direct payment. Students explore the role of public relations in marketing, how it differs from advertising, and the steps to develop a public relations campaign.	3
Marketing and Business Management	MARK	MARK128	An introductory course to the purposes, methods and techniques of marketing research and the principles on which they are based.	3

## Course Descriptions • Section 5

### Career Education Programs

Marketing and Business Management	MARK	MARK129	Students complete independent marketing projects, such as business or marketing plan development, advertising project development, international marketing project development, advanced project risk analysis assessment, or international marketing research. Requires instructor approval prior to registration.	5
Marketing and Business Management	MARK	MARK201	This course is an introduction to the various skills necessary to become an effective leader whether that role is as a member of a group, team leader, department head, supervisor or manager. This class also explores moral principle, decision making, community standards, corporate, community and personal responsibility	3
Marketing and Business Management	MARK	MARK203	This course is designed for non-financial managers and introduces the accounting process, key financial documents, ratios and profit analysis	5
Marketing and Business Management	MARK	MARK204	In this course, students enhance personal presentation skills in a variety of settings, from large groups to small business meetings. Meeting facilitation tactics are introduced and practiced as a part of this course	3
Marketing and Business Management	MARK	MARK205	Students complete independent business projects, such as business or marketing plan development, advertising project development, international marketing project development, advanced project risk analysis assessment, or international marketing research. Requires instructor approval prior to registration	5
Marketing and Business Management	MARK	MARK206	Students apply successful leadership models, analyze personal leadership styles, understand and synergize the dynamics of a team, and aptly empower people to make correct team and organizational decisions	3
Marketing and Business Management	MARK	MARK207	This course presents information on how leaders seek out, initiate, support and manage needed change. Concepts explored include the process of change, communication, and building commitment to bring about change within an organization	3
Marketing and Business Management	MARK	MARK208	This course explores how effective leaders achieve results through and with others. Students learn how effective leaders persistently go after goals and measure success in terms of results achieved.	3

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### Career Education Programs

Marketing and Business Management	MARK	MARK209	A relevant course looking at ways to start and sustain a small business, students apply techniques on how to maximize limited resources, plan for growth and remain profitable in today's economy. A detailed business plan as an individual project is completed.	5
Marketing and Business Management	MARK	MARK210	Explorations of practical skills that will enable students to better gain control of, and manage all aspects of business-oriented projects and increase team performance	4
Marketing and Business Management	MARK	MARK221		0 2
Marketing and Business Management	MARK	MARK222		0 5
Marketing and Business Management	MARK	MARK223		0 2
Marketing and Business Management	MARK	MARK224		0 5
Marketing and Business Management	MARK	MARK225		0 3
Marketing and Business Management	MARK	MARK226		0 2
Marketing and Business Management	MARK	MARK227		0 3
Marketing and Business Management	MARK	MARK228		0 5
Marketing and Business Management	MARK	MARK229		0 5
Marketing and Business Management	MARK	MARK296	Complete independent marketing projects, such as business or marketing plan development, advertising project development, international marketing project development, advanced risk analysis assessment, or international marketing research. Requires instructor approval prior to registration	13

## Course Descriptions • Section 5

### Career Education Programs

Mechanical Engineering Technology	MET	AMATH170	This course is a modular web-enhanced progression of foundational mathematical concepts and computation: skills required for success in engineering technology fields of study. Math concepts are taught using STEM field contextual basis. Successful completion of this course is equivalent to completion of intermediate algebra and meets the pre-requisites for math courses requiring a MATH 098 Pre-requisite. Pre-requisite: MATH087 or qualifying compass or CASA scores equivalent to MATH092.	5
Mechanical Engineering Technology	MET	CS&141	This course focuses on using the Java programming language to teach basic programming and concepts including procedural programming (methods, parameters, return values), basic control structures (sequence, if/else, for loop, while loop), file processing, arrays and an introduction to defining objects	5
Mechanical Engineering Technology	MET	ENGR&111	This course is designed for students enrolled in an engineering program who need to learn the basic concepts of engineering graphics. Topics include two dimensional CAD use of lettering, scale, geometric construction, drawing layout, orthographic or multiview drawings and dimensioning. This course also introduces the concepts of 3-D Computer aided Drafting (CAD) solid modeling design and its application to engineering drawing.	5
Mechanical Engineering Technology	MET	ENGR&112	This course is an introduction to basic dimensioning techniques using mechanical orthographic, architectural plans, and civil plat drawings. Students will create manufacturing and construction drawings using industry level dimensioning techniques relating to mechanical architectural and civil disciplines applying ASME and AIA standards. This course also introduces the concepts of 2D and 3D Computer Aided Design (CAD) and its application to engineering drawing. AMATH 170 (as pre or corequisite), ENGR&111 (as a pre or corequisite), or instructor permission.	5

## Course Descriptions • Section 5

### Career Education Programs

Mechanical Engineering Technology	MET	ENGR&214	A fundamental course in the mechanics of rigid bodies in static equilibrium conditions. Solves practical engineering problems involving the loads carried by structural components using Static principles, vector notation and calculus for mathematical modeling. Teaches principles and their limitations within the context of Engineering applications and the engineering design process. Students must take MATH&153 (as pre or corequisite), PHYS&223 (as a pre or corequisite), or instructor permission.	5
Mechanical Engineering Technology	MET	ENGR191	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the first quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. College navigation topics, including financial aid, workforce funding, childcare, library services. Soft skill topics of "coping with pressure" and "decision making".	1
Mechanical Engineering Technology	MET	ENGR192	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the second quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Create a social media profile that is geared towards employment. Soft skill topics of "drive for excellent results" and "cooperative teamwork"	1
Mechanical Engineering Technology	MET	ENGR193	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the third quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Cover letters, resume, and related employment documents prepared. Complete mock interviews and receive feedback. Soft skill topics of "initiative" and "flexibility".	1

## Course Descriptions • Section 5

### Career Education Programs

Mechanical Engineering Technology	MET	ENGR194	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the fourth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Apply for internships, attend local networking or Online gatherings. Participate in industry related discussions either through discussion groups or social media. Soft skill topics of "influential communication" and "continuous learning".	1
Mechanical Engineering Technology	MET	ENGR195	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the fifth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Complete applications to transfer colleges or employers. Soft skill topics of "decision-making" and "strategic vision".	1
Mechanical Engineering Technology	MET	ENGR196	Students meet with their cohort once a week in a lab setting for personalized support from instructors to complete contextualized projects spanning the sixth quarter's engineering coursework. Additional career preparation training and resources will be provided as students progress toward graduation. Use feedback and finalize resumes, cover letters, polished social media presence. Soft skill topics of "planning and organizing" and "integrity and respect".	1
Mechanical Engineering Technology	MET	MET105	Working with the "glass box" concept of orthogonally projecting an object to the six planes of view, students discuss the necessity of strict adherence to the American Standard Arrangement of views. First angle projection, used primarily in Europe and Asia, are also discussed	7
Mechanical Engineering Technology	MET	MET106	Students develop an acceptable drawing of section views and to crosshatch the areas sectioned with sectioning lines appropriate to the material in use	5
Mechanical Engineering Technology	MET	MET107	Proper dimensioning practice dictates that the drafter dimension features (surfaces and angles) only in those views where they are true shapes. Using projection techniques, students "normalize" features found in orthogonal views	5

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### Career Education Programs

Mechanical Engineering Technology	MET	MET108	Students study the standards set for dimensioning by the American National Standards Institute (ANSI) and the American Society of Mechanical Engineers (ASME) in order to understand the principals of proper dimensioning practices. They will then apply those practices to the dimensioning of drawings previously created.	4
Mechanical Engineering Technology	MET	MET110	This course is essentially the lab portion of MET 108. Particular attention is paid to strict adherence to industry standards	7
Mechanical Engineering Technology	MET	MET111	Tolerance dimensions allow the specification of a range of accuracy for the shape, size and/or position of features of a product. Students apply tolerances as they consider fit between mated parts, how features will be inspected, and how to place tolerance symbols on a drawing using CAD software	5
Mechanical Engineering Technology	MET	MET112	Using computer-aided-drafting (CAD) software, students generate all standard geometric and conic forms. Extensive work is required in the development of tangent arcs and planes	6
Mechanical Engineering Technology	MET	MET114	Engineering technicians, working in the field, are often required to hand draw parts, features of parts, and assemblies. This course teaches students to develop basic sketching skills so that they will be able to develop accurate and readable sketches	5
Mechanical Engineering Technology	MET	MET201	Students prepare to draw dimension working/production drawings necessary for machining, fabrication and/or assembly. The ability to fully annotate production drawings (general and specific notes, parts lists, and revision notes) is also an instructional objective of this course	4
Mechanical Engineering Technology	MET	MET202	Students draw detailed, schematic and simplified threads for all thread forms common to industry. Thread specifications are examined thoroughly as are standard and specialized screw/bolt head types. Helical springs (compression, extension and torsion) are also examined	3
Mechanical Engineering Technology	MET	MET203	Students study the characteristics of spur, worm, and bevel gears and learn to calculate the gear ratio and rpm of two mating spur gears. Given the pitch diameters, these gears, and their respective tooth forms, a detailed drawing is created	4
Mechanical Engineering Technology	MET	MET204	This course provides students with the ability to develop displacement profiles for cams based upon given specifications and follower motions. A series of cams will then be drawn from these profiles	4

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### Career Education Programs

Mechanical Engineering Technology	MET	MET205	Students study common pneumatic and hydraulic symbols and develop computer-aided-drafting (CAD) symbols appropriate for industry applications	3
Mechanical Engineering Technology	MET	MET206	Using the symbols developed in MET 205, students replicate industrial piping/process and instrumentation drawings (P&IDs)	4
Mechanical Engineering Technology	MET	MET207	Students develop sectional views of gate, globe, and check valves displaying details of all components. Additional study of valve applications may be provided through independent work in the Fire Protection Engineering program	4
Mechanical Engineering Technology	MET	MET208	The application of various pump classes and types is examined in order to determine how they add hydraulic energy to the movement of water. As with valves in MET 207, sectional views of a variety of pumps are developed in order to facilitate the students' understanding of their function	4
Mechanical Engineering Technology	MET	MET209	Given duct system characteristics for airflow requirements. Students complete these drafting projects in cooperation with the Sheet Metal Technology program	4
Mechanical Engineering Technology	MET	MET210	Students study common sheet metal duct fittings and develop computer-aided-drafting (CAD) symbols appropriate for industry applications	3
Mechanical Engineering Technology	MET	MET211	Using the principles of triangulation and radial line development, students develop flat patterns for such common types of sheet metal fittings as elbows and transitions	5
Mechanical Engineering Technology	MET	MET212	Students study the means by which air is distributed in mechanically ventilated spaces by means of fans, ductwork, and diffusers	3
Mechanical Engineering Technology	MET	MET214	This course is an independent study in special projects to give students additional training in a specific area selected by the instructor. Emphasis is on individual student needs to improve or expand skills in a variety of areas	7
Mechanical Engineering Technology	MET	MET215	Students learn to differentiate between types of axonometrics and to draw axonometric drawings including plan obliques and isometrics	5
Mechanical Engineering Technology	MET	MET216	This course is an independent study in special projects to give students additional training in a specific area selected by the instructor. Emphasis is on individual student needs to improve or expand skills in a variety of areas	7

## Course Descriptions • Section 5

### Career Education Programs

Mechanical Engineering Technology	MET	MET218	This course is an introduction to creating 3D CAD models using feature-based, parametric solid-modeling design; base, boss and cut features using extruded, revolved, simple swept and lofted shapes; capturing design intent using automatic or user-defined geometric and dimensional constraints; detail and assembly drawings.	5
Mechanical Engineering Technology	MET	MET260	This is an advanced CAD systems course, including 3D concepts, are used to produce engineering drawings using layers, masks, and groups. symbols and x-references are applied.	5
Mechanical Engineering Technology	MET	MET291	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen. *Instructor Approval Required	13
Mechanical Engineering Technology	MET	MET292	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.*Instructor Approval Required	13
Mechanical Engineering Technology	MET	MET293	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.*Instructor Approval Required	5
Mechanical Engineering Technology	MET	MET294	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.*Instructor Approval Required	5
Medical Simulation Operations Specialist	MSOS	SIM110	This course instills a base level of skills required to be successful in the educational journey as well as the career that lies beyond. Employers across all medical sub-disciplines stress the importance of soft skills such as communication, flexibility, research, goal-setting and critical thinking as well as scheduling and working within a budget.	3

## Course Descriptions • Section 5

### Career Education Programs

Medical Simulation Operations Specialist	MSOS	SIM111	The study of electronics represents a significant portion of the knowledge and skills required in the Medical Simulation industry. This course begins with a discussion of atomic energy and leads the student through DC electronics, AC electronics, basic semiconductors and amplifiers with emphasis placed on biomedical applications.	4
Medical Simulation Operations Specialist	MSOS	SIM112	This course introduces the student to basic safety measures, with the goal of creating a personal safety culture. Additionally, regulations such as HIPAA are very important to graduate success. In hospitals and medical research facilities offer some interesting challenges when it comes to working safely and within the laws of compliance.	3
Medical Simulation Operations Specialist	MSOS	SIM120	This course picks up where Electronic Principles I left off. Starting with an introduction to digital technologies, the course includes the development of skills and knowledge of digital communications, fiber optics, wireless communications and microcontrollers.	4
Medical Simulation Operations Specialist	MSOS	SIM121	This course explores the equipment and methods used to acquire the types of data pertinent to the Simulation Tech industry. The importance for one to utilize their ability to think critically in a technical environment is essential to technicians in the Biomedical field. In order to think critically, it is necessary to acquire data. This data is acquired through measurement and testing of electronic and mechanical parts alike.	3
Medical Simulation Operations Specialist	MSOS	SIM122	This course represents the hands-on guided practice laboratory component of Electronic Principles I	4
Medical Simulation Operations Specialist	MSOS	SIM123	Computers and interfacing are present in every simulation, and possession of a third-party certification is invaluable when starting a career. This helps you to prepare for the CompTIA A+ certification; one of the most universally recognized certs in this area of the discipline. NOTE: CompTIA Certification in A+ is not required to complete this course but it is highly recommended. Currently, Bates proctors this exam at our Advanced Technology Center.	4
Medical Simulation Operations Specialist	MSOS	SIM130	This course represents the hands-on guided practice laboratory component of Electronic Principles II and Test and Measurement	4

## Course Descriptions • Section 5

### Career Education Programs

Medical Simulation Operations Specialist	MSOS	SIM131	This course distills, from a wide palette of electromechanical skills, those which are essential to the Simulation Operations Specialist and presents them in a cohesive manner so as to lay a technical foundation for the career- specific skills offered later. Topics such as pneumatics, hydraulics, dynamics, data converters, transducers and measurement techniques (along with their respective electronic interfaces) are presented.	4
Medical Simulation Operations Specialist	MSOS	SIM132	This course is designed to prepare the student for certification by CompTIA in the area of Networking. As most of today's biomedical equipment, including simulation hardware, is networked so as to be able to share resources and data. NOTE: CompTIA Certification in Networking is not required to complete this course but it is highly recommended. Currently, Bates proctors this exam at our Advanced Technology Center.	4
Medical Simulation Operations Specialist	MSOS	SIM140	This courses engages in hands-on training, and to prepare, rehearse and implement Basic Life Support (BLS) simulated training scenarios. Additionally, this course will strengthen the basic programming and maintenance for high - and low-fidelity manikins while concurrently developing team dynamics, problem solving and critical thinking skills. Student must pass this course with a 2.0 grade in order to be applied to degree completion.	4
Medical Simulation Operations Specialist	MSOS	SIM141	This course provides the opportunity to survey devices and write programs to interface them into industry-relevant functionality. Much of the technology used in medical simulation involves the ability to convert between changes in position or condition and a measurable electrical quantity, and the control of these devices using a microcontroller.	4
Medical Simulation Operations Specialist	MSOS	SIM142	This course addresses the functionality of simulation equipment while focusing on equipment management, utility testing, and targeted assessment strategies. Student must pass this course with a 2.0 grade in order to be applied to degree completion.	4
Medical Simulation Operations Specialist	MSOS	SIM143	This Online course familiarizes the student with the basic language used in the medical professions. Emphasis is given to specific terminology most often used in medical simulation.	4

## Course Descriptions • Section 5

### Career Education Programs

Medical Simulation Operations Specialist	MSOS	SIM144	This course covers basic concepts of simulation hardware and software in order to address the impact of hardware design on applications and systems software. Specifically, students will focus on simulation theory as it applies to the basic components and application of simulation equipment and software. Student must pass this course with a 2.0 grade in order to be applied to degree completion.	2
Medical Simulation Operations Specialist	MSOS	SIM210	This course is designed to develop the essentials of Pharmacology as it pertains to simulation. It provides students with an opportunity to learn and apply pharmacology principles to simulated manikins in order to record the effects of medication administration to simulated patients with varying disease conditions. Student must pass this course with a 2.0 grade in order to be applied to degree completion.	2
Medical Simulation Operations Specialist	MSOS	SIM211	This course focuses on designing and running case-based simulation scenarios for emergencies involving labor/delivery, infants and children. Students will be required to develop and implement PALS. Student must pass this course with a 2.0 grade in order to be applied to degree completion.	5
Medical Simulation Operations Specialist	MSOS	SIM212	This course is designed to develop and implement instructional support materials for high- and low-fidelity simulations by using Learning Management Systems. A strong focus will be placed accessibility, instructional strategies and assessment. Medical simulation is a complex integration of technology that requires the use of Online support materials. It is the Simulation Technician's role to organize and present this support material electronically with the use of a Learning Management System.	2
Medical Simulation Operations Specialist	MSOS	SIM213	In this course, the principles of instructional design and high-fidelity simulation standards will be utilized to develop, pilot, revise and implement new simulation scenarios. These scenarios will be employed in the practicum site and be evaluated using a 360-degree feedback process.	3
Medical Simulation Operations Specialist	MSOS	SIM214	By engaging in strategies to promote the upkeep, connectivity, and reliable operation of SIM audiovisual equipment, students learn how to develop and implement reliable access points for audiovisual debriefing. A 2.0 grade is required for degree completion.	5

## Course Descriptions • Section 5

### Career Education Programs

Medical Simulation Operations Specialist	MSOS	SIM220	The focus of this course, is the ability to interpret technical drawings of an electromechanical nature and create sketches is essential to the Simulation Operations Specialist. Dimensioning, electrical schematics, threads and fasteners, fit and clearance, and tolerancing are topics included in this course.	2
Medical Simulation Operations Specialist	MSOS	SIM221	This course will focus on developing and implementing ACLS training scenarios for nursing instruction, hospital and medical providers, and emergency response teams. Utilizing a high level of engagement strategies and collaboration with community partners, students will direct the management of simulation care-based scenarios in relation to cardiopulmonary arrest and other cardiovascular emergencies. A 2.0 grade is required for degree completion.	4
Medical Simulation Operations Specialist	MSOS	SIM222	This course will focus on the practical application of skills taught in previous simulation courses as applied to Allied Health. Comprehension, application, and leadership are key skills that are required for students to begin to demonstrate as they engage in the process of running their own simulations for Allied Health end-users.	3
Medical Simulation Operations Specialist	MSOS	SIM223	In this capstone course, students work on simulation projects in a healthcare setting under the direct supervision of a healthcare professional in order to practice the application of learned medical simulation theory and lab skills.	5
Medical Simulation Operations Specialist	MSOS	SIM297	This course provides a work-based learning experience with an instructor-approved employer in student's program of study. Emphasis is placed on integration of classroom learning with related work experience. Specific learning outcomes need to be agreed upon in a written agreement between student, instructor, and participating employer. Upon completion, students should be able to evaluate their career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. *INSTRUCTOR APPROVAL REQUIRED	13
Motorcycle and Marine Technology	POW	POW101	This course provides students with training in workplace human relations, communications, shop safety environmental awareness, tools and equipment, measuring, fasteners, and mechanical and mathematical principles required within the occupation.	3

## Course Descriptions • Section 5

### Career Education Programs

Motorcycle and Marine Technology	POW	POW102	This course provides students with training in perform maintenance for a variety of Power Sports vehicles. The skills covered will include checking fluids, adjustments and determining serviceability life of the vehicle	5
Motorcycle and Marine Technology	POW	POW105	This course provides training for the student to learn to service and repair disc and drum brake systems in the Power Sports world. Students will learn a variety of systems and will learn how to make a decision on serviceability of wear items and how to make the proper repair to the brake system. This course provides the theory and service procedures for ABS based systems found on Power Sports vehicles.	5
Motorcycle and Marine Technology	POW	POW106	This course will provide training in servicing and repairing tires in the power sports industry. This course will train students to determine the serviceability of the tire, determine and make the proper repair to a tire, remove and replace tires and to balance tires. This course will provide students with training on identifying and correcting problems with wheels and wheel bearings.	5
Motorcycle and Marine Technology	POW	POW120	Students are introduced to the theory of internal combustion engines and learn how to diagnosis problematic engines and analyze failed engines	5
Motorcycle and Marine Technology	POW	POW121	Students learn to correctly disassemble, inspect, and machine engines to return to service. Special emphasis is placed upon the utilization of service manuals and manufacturers' guidelines	5
Motorcycle and Marine Technology	POW	POW122	This course will train students in the methods of reassembling internal combustion engines. Students will be taught industry standard methods of lubricating, sealing, torquing internal combustion engines. Students will be taught proper methods of engine break in once engines are put back into service.	5
Motorcycle and Marine Technology	POW	POW123	This course provides training in identifying, cleaning, servicing and tuning carburetors. Specific attention will be paid in this class to classifying carburetor driven faults and to properly balancing and tuning carburetors.	5
Motorcycle and Marine Technology	POW	POW140	This course is an introduction to electrical systems. Students receive electrical and electronic theory, learn to use electrical test equipment, and provide basic electrical systems inspections and service. Students will receive training in the theory and application of the Diagnostic Electrical Rules	5

## Course Descriptions • Section 5

### Career Education Programs

Motorcycle and Marine Technology	POW	POW141	Students are introduced to the charging and starting systems encountered in various types of motorized vehicles. Special emphasis is placed upon the utilization of service manuals and electrical schematics. Students will be exposed to a variety of troubleshooting techniques including 6 step troubleshooting in both charging and starting systems.	5
Motorcycle and Marine Technology	POW	POW142	Students receive training and practice in servicing and repairing the electrical ignition systems of various types of motorized vehicles. This includes problem identification, diagnostic testing, repair, and rising and collapsing field ignition systems. This course will cover Magneto, CDI and Transistorized ignition systems found on a variety of Power Sports vehicles.	5
Motorcycle and Marine Technology	POW	POW150	Students are introduced to transmission theory, service and repair. A wide variety of applications are presented and studied. The students will use practical application to learn to service transmissions.	5
Motorcycle and Marine Technology	POW	POW151	Students receive training in the servicing and repairing of the various modes of transmitting engine power. This includes clutches, gear drive, belt/chain drive systems, and manual starters. Students will receive training in final drive ratios including bevel drive gear sets and differentials.	5
Motorcycle and Marine Technology	POW	POW154	Students receive training computer logic, power and ground circuits. Students will receive training in how a microprocessor works, how scan tools communicate with vehicles and diagnostic strategies for testing computer power and ground circuits.	3
Motorcycle and Marine Technology	POW	POW155	This course will cover in depth study of electronic fuel injection in the power sports industry. Students will study sensor operation and diagnosis; fuel delivery and injector operation and diagnosis; and oxygen sensor operation and diagnosis.	5
Motorcycle and Marine Technology	POW	POW161	Service/technician students receive shop experience in maintaining or repairing frame and suspension systems including steering systems, wheels/tire assemblies, and suspension systems.	5
Motorcycle and Marine Technology	POW	POW162	This course offers students an opportunity to work on a lab-based project instead of a work-based learning component. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen.	15

## Course Descriptions • Section 5

### Career Education Programs

Motorcycle and Marine Technology	POW	POW296	Work Based Learning (WBL) allows the students to participate in on-the-job training in the field in which they are studying. They apply the skills they have learned in the classroom to specific areas of employment in a variety of business/industries. The learning activity is based on the written agreement with the participating training provider.	13
Motorcycle and Marine Technology	POW	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Occupational Therapy Assistant	OTA	OTA102	Principles and strategies for managing health and promoting wellness are practiced. Importance of balancing areas of occupation for success in occupational roles are examined and applied	3
Occupational Therapy Assistant	OTA	OTA103	This course covers basic principles of kinesiology, biomechanics, and associated biological systems related to daily living activities. Techniques for body mechanics, safety and mobility, energy conservation, task simplification are covered. Upper extremity functions for everyday tasks are emphasized	5
Occupational Therapy Assistant	OTA	OTA104	The focus of this course is to explore personal values and cultural attitudes that relate to individual performance, group interactions and therapeutic use of self for the establishment of therapeutic relationships. Group roles, learning styles, leadership, and communication styles will be examined in a variety of ways. Students develop basic skills for observation, interviewing, communicating with their cohort but also with the population we serve. Personality, insights, perceptions and judgments as part of the therapeutic process are covered and addressed to ensure success as occupational therapy practitioners.	5
Occupational Therapy Assistant	OTA	OTA105	Basic principles of neurology and associated sensory and cognitive systems related to daily living activities. Deficits in sensory, perceptual and cognitive functioning and effects on occupational performance are examined	4
Occupational Therapy Assistant	OTA	OTA106	This course covers areas of human occupation through analysis of activities of daily living- work, leisure, play and self-care. Students develop an understanding of the nature and value of occupation to support client participation and performance through therapeutic crafts and daily living activities	5

## Course Descriptions • Section 5

### Career Education Programs

Occupational Therapy Assistant	OTA	OTA107	This course focuses on students learning about the functional implications of various pediatric diagnoses on areas of occupation: self-care, play, education, and social participation while considering sociocultural and ethical issues when working with children and adolescents and their families. These experiences promote essential critical thinking and clinical reasoning abilities in students as they learn to apply theoretical frames of reference in pediatric occupational therapy and develop assessment skills and intervention plans for children and adolescents with various diagnoses. Lab experiences will be part of the class, and allow students to practice specific occupational therapy assessment measures and intervention techniques for infants, children and adolescents.	5
Occupational Therapy Assistant	OTA	OTA108	Students participate in observations and guided practice opportunities for applying OT principles in traditional and nontraditional settings	1
Occupational Therapy Assistant	OTA	OTA109	Adaptive technology used in occupational therapy setting is explored through laboratory practice and field site visits. Low technology such as prosthetics, positioning equipment and adaptive aides for daily living to more advanced computer technology utilized for environmental control and augmentative communication are covered	5
Occupational Therapy Assistant	OTA	OTA110	Students learn about record keeping, progress note writing, and assisting the OT with functional goals and objectives for various OT settings. Overview of terminology of assessment results and treatment plans covered	3
Occupational Therapy Assistant	OTA	OTA111	This course provides an overview of the OTA program and the profession and the roles and responsibilities of OT practitioners in health care, community-based settings and school systems. Basic terminology, principles, philosophies and ethics are introduced for a better understanding of occupational therapy, the clients served, and other health care professionals working in the settings. Students gain computer literacy skills and library skills for accessing information about professional issues	5

## Course Descriptions • Section 5

### Career Education Programs

Occupational Therapy Assistant	OTA	OTA201	More advanced course to develop creative problem-solving, clinical reasoning, and documentation skills through exposure to barriers for safety and independence. Models and theories of occupation are applied and the effects on performance are examined. Students examine universal design principles and environmental modifications for work, home and the community	5
Occupational Therapy Assistant	OTA	OTA202	This course focuses on the further development of observation, assessment skills, task analysis and interventions for individuals with psychosocial challenges. Quality of life and meaningful occupations are emphasized. Conditions that lead to psychiatric and social-emotional challenges are examined. Clinical features, medical management and issues impacting OT are covered.	8
Occupational Therapy Assistant	OTA	OTA203	Students participate in observations and guided practice opportunities for applying OT principles in traditional and nontraditional settings	1
Occupational Therapy Assistant	OTA	OTA204	This course focuses on the applied mental health in fieldwork experiences, by articulating the physical components of individual/group function within the context of occupational therapy practice, based on skilled observations. Reflection on the ethical considerations within occupational therapy practice, including use of the AOTA Code of Ethics and Standards of Practice to make informed clinical and employment decision, including strategies for analyzing issues and making decisions to resolve personal and organizational ethical conflicts.	1
Occupational Therapy Assistant	OTA	OTA210	Trauma, illness, and other conditions that lead to physical dysfunction are examined. Therapy modalities to maximize independence, safety and participation in meaningful occupation are practiced. This course focuses on the further development of the student's skills in clinical reasoning carrying out the treatment plan Trauma, illness, and other conditions that lead to physical dysfunction are examined. Therapy modalities to maximize independence, safety and participation in meaningful occupation are practiced.	8
Occupational Therapy Assistant	OTA	OTA212	Students participate in observations and guided practice opportunities for applying OT principles in traditional and nontraditional settings	1

## Course Descriptions • Section 5

### Career Education Programs

Occupational Therapy Assistant	OTA	OTA213	This course focuses on the applied physical rehabilitation in fieldwork experiences, by articulating the physical components of individual/group function within the context of occupational therapy practice, based on skilled observations. Reflection on the ethical considerations within occupational therapy practice, including use of the AOTA Code of Ethics and Standards of Practice to make informed clinical and employment decision, including strategies for analyzing issues and making decisions to resolve personal and organizational ethical conflicts.	1
Occupational Therapy Assistant	OTA	OTA220	The first of two eight-week off-campus work experiences in a clinical setting under the supervision of a licensed occupational therapist or a certified occupational therapy assistant. This forty-hour per week rotation is to further develop and practice the skills of an entry-level OTA and must be successfully completed before student is eligible for the national certification examination	11
Occupational Therapy Assistant	OTA	OTA221	Discussion and problem-solving of fieldwork experiences and preparation for the national board exam are emphasized	1
Occupational Therapy Assistant	OTA	OTA222	The second of two eight-week career experiences working in a clinical setting under the supervision of a licensed occupational therapist or a certified occupational therapy assistant. This forty-hour per week rotation is to further develop and practice the skills of an entry-level OTA and must be successfully completed before student is eligible for the national certification examination	11
Occupational Therapy Assistant	OTA	OTA223	Discussion and problem-solving of fieldwork experiences and preparation for the national board exam are emphasized	1
Occupational Therapy Assistant	OTA	OTA231	This course focuses on the settings which require the OT assistant to be an independent self-starter. Occupational therapy practice with elderly clients in long term care, assisted living and home health care, pediatric clients in school settings, and injured workers in work condition programs are covered.	4
Occupational Therapy Assistant	OTA	OTA232	Preparation for fieldwork, certification and employment of the OTA, as well as, workplace issues and job-related responsibilities of OTA are covered. The OTA as a manager, contractor, private practitioner and advocate of occupational therapy services are presented.	4

## Course Descriptions • Section 5

### Career Education Programs

Practical Nurse	PNUR	PNUR202	Students receive an overview of the health professions and the healthcare delivery systems with emphasis on the LPN's role in the health care working environment. Topics include nursing history, trends, disease prevention and wellness promotion, and guidelines for legal and ethical practice. Focus on the nursing process and basic therapeutic communications skills, basic human needs and healthy adjustments are also discussed with an emphasis on cultural, ethnic and religious needs. Students review legal requirements for licensure as a practical nurse. Liability issues related to practice, as well as ethical issues are discussed. Students review the Washington State Administrative Code for the practical nurse and discuss scenarios of how to work within professional boundaries. Students will recognize the need for change in the structured healthcare setting and demonstrate active participation in change.	4
Practical Nurse	PNUR	PNUR203	This course provides the beginning nursing core upon which all subsequent nursing courses are built with an emphasis on people as holistic beings with basic human needs. Included are specific nursing care principles common to all clients. Discussion focuses on identifying the needs of individuals within a family and community environment. Students will be introduced to simulation of enhanced demonstration & mastery of beginning practical nursing concepts and skills.	7
Practical Nurse	PNUR	PNUR204	This course provides an overview of the care and management of patients with cardiovascular, respiratory diseases. Diseases are studied in relation to etiology, pathophysiology, clinical signs, medical management and geriatric implications. Discussions integrate principles of pharmacology/medication administration, diagnostic testing, and nursing interventions to assist the client's return to maximum levels of function.	4
Practical Nurse	PNUR	PNUR220	This course provides advanced practical nursing skills for successful transition into clinical settings. Included are special nursing care principles common to all clients. Discussion focuses on identifying the needs of individuals within a family and community environment. Simulation scenarios become more complex to facilitate higher level practical nursing concepts and skills.	4

## Course Descriptions • Section 5

### Career Education Programs

Practical Nurse	PNUR	PNUR222	Within a variety of clinical settings, students begin to utilize the nursing process to give comprehensive care to a diverse population of clients. Clinical experience is integrated with theory under the guidance of faculty and enables the student to implement skills and apply theory learned in the classroom. Simulation is utilized to augment clinical learning opportunities.	4
Practical Nurse	PNUR	PNUR223	This course provides an overview of the care and management of patients with hematologic & immune mediated disorders. Several diseases will be examined in relation to etiology, pathophysiology, clinical signs, medical management and geriatric implications. Discussions integrate principles of pharmacology/medication administration, diagnostic testing, and nursing interventions to assist the client's return to maximum levels of function.	3
Practical Nurse	PNUR	PNUR224	This course focus is on the practical nurse's role in medication administration to persons of all ages. Basic concepts, various medication delivery systems, dosage calculation, drug classifications, and nursing implications are presented for the various bodily systems. Safe administration and documentation of medications are presented in the laboratory setting	4
Practical Nurse	PNUR	PNUR230	This course provides an overview of the care and management of patients with endocrine, GI, GU and orthopedic disorders. The diseases are studied in relation to etiology, pathophysiology, clinical signs and symptoms, medical management and geriatric implications. Discussions integrate principles of pharmacology/medication administration, diagnostic testing and nursing interventions to assist the client's return to maximum levels of function.	5
Practical Nurse	PNUR	PNUR233	Within a variety of clinical settings, using the experience gained in PNUR222, students continue to utilize the nursing process to give comprehensive care to diverse populations of clients. Clinical experience is correlated with theory under the guidance of faculty and enables the student to implement skills and apply theory to the practice of the practical nurse. Simulation will be utilized to augment clinical learning opportunities and advanced nursing math principles will be introduced.	3

## Course Descriptions • Section 5

### Career Education Programs

Practical Nurse	PNUR	PNUR234	Within a variety of clinical settings, using the experience gained in PNUR233, students continue to utilize the nursing process to give comprehensive care to a diverse population of clients. Clinical experience is correlated with theory under the guidance of faculty and enables students to implement skills and apply theory to the practice of the practical nurse. Simulation will be utilized to augment clinical learning opportunities and advanced nursing math principles will be reinforced.	3
Practical Nurse	PNUR	PNUR235	This course facilitates the application of the nurse process in the care of a developing human, from prenatal to through adolescence milestones to promote optimal individual health and development at any stage of the health continuum. Male & female reproduction, including normal & abnormal pregnancy will also be discussed.	4
Practical Nurse	PNUR	PNUR240	This course provides an overview of the nursing care concepts related to mental health, neurological and eye and ear disorders. Diseases are studied in relation to etiology, pathophysiology, clinical signs and medical management and geriatric changes. Discussions integrate principles of pharmacology/medication administration, diagnostic testing, and nursing interventions to assist the client's return to maximum levels of function.	7
Practical Nurse	PNUR	PNUR241	Within a variety of clinical settings, using the experience gained in PNUR234, students continue to utilize the nursing process to give comprehensive care to a diverse population of clients. Clinical experience is correlated with theory under the guidance of faculty and enables students to implement skills and apply theory to the practice of practical nursing. Simulation will be utilized to augment clinical learning opportunities and advanced nursing math principles will be reinforced.	4
Practical Nurse	PNUR	PNUR242	This course includes an experience with a staff licensed practical nurse as a mentor or preceptor in a selected clinical area for the student's final clinical experience. Students increase skill level from orientation to performing almost independently under the supervision of their mentor.	4

## Course Descriptions • Section 5

### Career Education Programs

Practical Nurse	PNUR	PNUR290	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	3
Practical Nurse	PNUR	PNUR295	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	3
Practical Nurse	PNUR	PNUR299	This course offers students an opportunity to work independently on a project that is determined by both the instructor and the student. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	3
Sheet Metal Technology	SHME	SHME101	Students are introduced to basic hand tools and machines that are used within the sheet metal shop atmosphere. Students are provided instruction and training in workplace human behaviors and interpersonal skills required within the sheet metal occupation. Attendance, punctuality, self-management skills, classroom, shop participation and employer expectations are emphasized	3
Sheet Metal Technology	SHME	SHME103	Students demonstrate how to fabricate a variety of commonly used heating and air conditioning (HVAC) elbows, Y branches, and transitional fittings. Students assemble fabricated fittings to form a maze and fabricate custom fittings to complete final assembly. This area of the program begins developing students technical reading skills	7
Sheet Metal Technology	SHME	SHME105	Students are introduced to and demonstrate how to apply various elements of material handling and transporting goods used in the sheet metal industry. The subjects covered are tying knots, crane signals, creating travel plans and becoming certified for a straight mast forklift operator	3
Sheet Metal Technology	SHME	SHME107	Students are introduced to and develop the skills to understand and solve mathematical problems that have direct application to the fabrication and cost estimation of sheet metal components. These assignments include the foundational principles of basic mathematics with equations involving fractions, decimals, percentages, practical geometry construction and trigonometry	5

## Course Descriptions • Section 5

### Career Education Programs

Sheet Metal Technology	SHME	SHME112	Students mastery of fabrication and layout-skills are applied with the completion of the thirty fittings exam. Thirty commonly used components are produced within 30 hours. Students exercise their critical thinking skills as well as the production techniques that they have learned to this point in the program	8
Sheet Metal Technology	SHME	SHME120		0      3
Sheet Metal Technology	SHME	SHME124		0      4
Sheet Metal Technology	SHME	SHME125		0      3
Sheet Metal Technology	SHME	SHME127		0      2
Sheet Metal Technology	SHME	SHME128		0      2
Sheet Metal Technology	SHME	SHME129		0      1
Sheet Metal Technology	SHME	SHME130		0      3
Sheet Metal Technology	SHME	SHME131		0      1
Sheet Metal Technology	SHME	SHME132		0      3
Sheet Metal Technology	SHME	SHME133		0      2
Sheet Metal Technology	SHME	SHME134		0      2
Sheet Metal Technology	SHME	SHME135		0      2
Sheet Metal Technology	SHME	SHME136		0      2
Sheet Metal Technology	SHME	SHME137		0      3
Sheet Metal Technology	SHME	SHME138		0      2
Sheet Metal Technology	SHME	SHME150	Students learn how to use various specialty hand tools in the shop atmosphere and the proper use of metal cutting shears, bending machines, forming machines, and common power tools. Students learn about circumference rules, framing squares, numerous marking tools, metal cutting shears, and joining tools. Students learn about machines to form complex seams, cleats and locks used in the fabrication and assembly of ventilation fittings.	5

## Course Descriptions • Section 5

### Career Education Programs

Sheet Metal Technology	SHME	SHME151	Students are introduced to the principles of safety and health and hazardous communications as they relate to construction. An introduction to the OSHA/WISHA guidelines, occupational standards are included. Students complete written assignments on these subjects. Students apply various principles in the shop area as they proceed through the program	4
Sheet Metal Technology	SHME	SHME152	Students are introduced to basic terminology, drafting lines, labeling and object protection. Students create hand drafted assignments that develop basic, orthographic and isometric views of shapes and sheet metal components. Students develop the skills necessary to visualize and understand common and complex sheet metal components. Students apply triangulation principles and are introduced to parallel line development techniques.	6
Sheet Metal Technology	SHME	SHME153	Intermediate students are introduced to principles and applications of architectural flashings, coping, gutters, downspouts, louvers, metal siding and conductor heads. Tasks involved design, fabrication and installation of these items using SMACNA Architectural Sheet Metal Standards.	5
Sheet Metal Technology	SHME	SHME203	Advanced students research information from numerous types of blueprints dealing with all aspects of the construction process. Students are assigned plans and answer questions pertaining to the computer aided designs of highly detailed ventilation systems that are installed in current applications	5
Sheet Metal Technology	SHME	SHME206	Advanced sheet metal students are challenged to apply advanced principles to design, layout and efficiently fabricate complex HVAC ducting elbows, branches, offsets, tapers and transistors	5
Sheet Metal Technology	SHME	SHME213	Advanced students are introduced to blueprint organization, terminology, sketching techniques, symbols, and lines. Using the proper techniques, students hand sketch assignments that develop oblique, perspective, isometric and orthographic projections. Students are introduced to different scales of measurements and construction materials. Students learn to interpret various blueprint specifications relating to construction.	4

## Course Descriptions • Section 5

### Career Education Programs

Sheet Metal Technology	SHME	SHME217	Intermediate students are introduced to the Washington State Energy Codes, Uniform Mechanical Codes and International Residential Codes. Open book research is conducted to answer numerous questions about items that directly apply or are associated with the installation or fabrication practices of various sheet metal applications.	2
Sheet Metal Technology	SHME	SHME250	Advanced sheet metal students continue to develop the spatial thinking skills necessary to visualize and understand more complex sheet metal components. Advanced sheet metal students apply principles dealing with parallel line, radial line, triangulation and/or combinations of all three areas of layout.	7
Sheet Metal Technology	SHME	SHME251	Advanced students are introduced to design and balancing terminology pertaining to this important area of the sheet metal industry. Students use mathematical formulas and computer programs to derive duct design variables such as friction loss, dynamic loss, cubic feet per minute, feet per minute, cross sectional areas, fan pulley sizes, BTUs, duct sizes and round substitutions are calculated for numerous applications.	5
Sheet Metal Technology	SHME	SHME252	Students will design horizontal and vertical ductwork systems. Students will install various types of ductwork using different types of hangers in an unconfined field/shop setting. Students will use a manual duct lift in an unconfined field/shop setting.	6
Sheet Metal Technology	SHME	SHME253	Students will design horizontal ductwork systems. Students will install various types of ductwork using different types of hangers in a confined field/shop setting. Students will install various types of HVAC units in a confined field/shop setting. Students design and install gas piping in a confined field/shop setting.	6
Sheet Metal Technology	SHME	SHME254	During this final stage of training, advanced sheet metal students apply their acquired knowledge of design, layout and fabrication to real world, client projects when these are available. When these types of projects are not available, students will receive assignments from the instructor. This includes handing the project from the beginning working from the client's requirements. This will include but is not limited to the project estimation of materials and shop overhead costs of the finished product or assignment.	6

## Course Descriptions • Section 5

### Career Education Programs

Sheet Metal Technology	SHME	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Software Development	SOFT	CS&141	This course focuses on using the Java programming language to teach basic programming and concepts including procedural programming (methods, parameters, return values), basic control structures (sequence, if/else, for loop, while loop), file processing, arrays and an introduction to defining objects	5
Software Development	SOFT	DATA101	In this course, students will be using SQL Server Express, Vertebelos, and other data modeling tools, students recognize the concepts and theory of database management systems (DBMS), including the analysis and design of relational database systems, modeling business and scientific problems and normalizing relationships in tables	5
Software Development	SOFT	DATA102	This course provides a solid foundation of the SQL programming language that enables students to build, query and manipulate databases. Working in SQL Server database throughout this course, students compare the ANSI/ISO standard with the SQL implementation of this database product.	5
Software Development	SOFT	DATA104	In this course, students will learn how to perform data analysis using Excel’s most popular features. You will learn how to create pivot tables from a range with rows and columns in Excel and see their ability to summarize data in flexible ways, enabling quick exploration of data and producing valuable insights from the accumulated data.	5
Software Development	SOFT	DATA205	This course introduces the student to Database administration including database creation, maintenance, backup, recovery, and user account administration.	5
Software Development	SOFT	DATA206	This course focuses on how Business Intelligence is the application of software technologies that enables business users to make better and faster decisions based on enterprise data. In this course, you are introduced to Data Warehousing and creating Business Intelligence solutions. You learn how to build and integrate Microsoft tools into a comprehensive business solution in order to achieve competitive advantage	5

## Course Descriptions • Section 5

### Career Education Programs

Software Development	SOFT	DATA207	This course will introduce students to the field of data visualization. Students will learn basic visualization design and evaluation principles, and learn how to acquire, parse, and analyze large datasets. Students will also learn techniques for visualizing multivariate, temporal, text-based, geospatial, hierarchical, and network/graph-based data.	5
Software Development	SOFT	SOFT101	This course provides an overview of basic computer concepts as they apply to MIS professionals. Emphasis is on basic machine architecture including data storage, manipulation, the human-machine interface including the basics of operating systems, algorithms and programming languages	5
Software Development	SOFT	SOFT102	This course covers core JavaScript language constructs to build a foundation of its syntax. Use values, variables, decision structures, functions, array, strings, HTML form manipulation, cookies, debugging and other techniques.	5
Software Development	SOFT	SOFT121	In this course, students will develop fundamental concepts and techniques for analysis, design, and implementation of computer programs using an object-oriented language. Includes graphical user interfaces, event driven programming and simple data structures	5
Software Development	SOFT	SOFT123	In this course, students will design and implement an interactive, data-driven Website. Write JavaScript programs to add useful behavior to web pages. Use and extend popular libraries such as JQuery. Use common JavaScript references to discover and use new APIs and information.	5
Software Development	SOFT	SOFT144	This course develops students' knowledge in data structures and the associated algorithms. It introduces the concepts and techniques of structuring and operating on Abstract Data Types in problem solving.	5
Software Development	SOFT	SOFT204	Introduction to computing using Python. Study and create programs that perform various tasks, including text and file manipulation, internet scripting, data structures, testing, and practical problem solving with examples. Covers object-oriented programming and the Python Standard Library	5

## Course Descriptions • Section 5

### Career Education Programs

Software Development	SOFT	SOFT207	This course focuses on common sorting, searching and graph algorithms are used, and the complexity and comparisons among these various techniques are studied. Design and develop user interfaces to collect and present data and information Implement measures to create secure web sites. Create back end database server to host websites. Design and develop pages for a typical web application.	5
Software Development	SOFT	SOFT210	This course introduces building applications for mobile devices. The course will use the Android platform. Covers mobile programming principles. Explores application life cycle, user interfaces, data management, memory management and web services.	5
Software Development	SOFT	SOFT211	This course introduces building applications for mobile devices. The course will use the Android platform. Covers mobile programming principles. Explores application life cycle, user interfaces, data management, memory management and web services.	5
Software Development	SOFT	SOFT211	This course introduces building applications for mobile devices. The course will use the Android platform. Covers mobile programming principles. Explores application life cycle, user interfaces, data management, memory management and web services.	5
Software Development	SOFT	SOFT290	This course offers students an opportunity to work on a project researching and applying skills and technologies learned. The project should be based on prior course work and should result in the achievement of advanced learning in the subject area chosen	5
Software Development	SOFT	WEB102	In this course, students will be using a text editor, building a strong foundation in HTML, XHTML, and Cascading Style Sheets (CSS) so students can migrate to HTML editors. Students write code integrating CSS right from the start to reinforce concepts and skills learned	5
Welding	WELD	WBAS101	This course is an introduction to industry-standard welding and cutting processes. Safety principles, equipment setup, and the use of tools and materials are presented.	8
Welding	WELD	WELD101	This course is an introduction to the safety practices and procedures common to the welding industry	2
Welding	WELD	WELD102	Students read, interpret and create graphic drawings to complete welding projects	4

## Course Descriptions • Section 5

### Career Education Programs

Welding	WELD	WELD103	This course is an introduction to the tools, equipment, and materials used in the layout and fabrication of welding project	2
Welding	WELD	WELD104	This course is an introduction to the use of oxy/acetylene welding and cutting equipment	3
Welding	WELD	WELD105	This course is an introduction to the SMAW process with emphasis safety and theory. This class is the beginning in developing eye - hand coordination using fast fill SMAW electrodes on different groove designs and weld positions	5
Welding	WELD	WELD107	Students perform brazing and soldering techniques with emphasis on the changes in the process encountered at various temperatures	1
Welding	WELD	WELD108	This course is an extension of weld 107, using more advanced welding techniques in the flat and horizontal positions	5
Welding	WELD	WELD109	This course is an extension of weld 107, using more advanced welding techniques in the vertical and overhead positions	5
Welding	WELD	WELD110	This course is an advanced SMAW class using fast freeze electrodes in preparation for pipe welding	5
Welding	WELD	WELD111	Students receive instruction on the GMAW process learning theory, safety, and equipment set up	3
Welding	WELD	WELD112	In this course students use hands-on application of the different transfer modes of GMAW on mild steel in all positions	4
Welding	WELD	WELD113	In this course students use hands-on application of the different transfer modes of GMAW on aluminum in all positions	5
Welding	WELD	WELD114	Students receive instruction on the FCAW process learning theory, safety and equipment set up	4
Welding	WELD	WELD115	Students use the hands-on application skill of FCAW in all positions, on mild steel	5
Welding	WELD	WELD116	This course is designed to teach students how to safely use plasma arc and carbon arc cutting techniques	5
Welding	WELD	WELD117	Students learn to read and interpret welding symbols and abbreviations using fabrication plans and drawings common to the welding industry per American welding society.	5
Welding	WELD	WELD201	This course is an introduction to the gas tungsten arc GTAW welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques	5

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### Career Education Programs

Welding	WELD	WELD202	Students receive instruction on the GTAW process performing fillet and groove welds with various electrodes and filler materials on steel and stainless steel.	5
Welding	WELD	WELD203	Students learn to perform GTAW fillet and groove welds on aluminum	5
Welding	WELD	WELD204	This course gives the student certification testing time in SMAW	5
Welding	WELD	WELD205	This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and weld discontinuities. Students perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions	5
Welding	WELD	WELD206	This course is designed to enhance skills with the GTAW welding process. Topics include setup, joint preparation, and electrode selection with an emphasis on manipulative skills in all welding positions on pipe	5
Welding	WELD	WELD207	This course gives the student certification testing time in flux cored arc welding (FCAW).	5
Welding	WELD	WELD208	This course is an introduction to non-destructive testing methods used to detect discontinuities to help assure standards of quality in welding. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials	2
Welding	WELD	WELD210	This course offers the student the opportunity to use the knowledge and skills learned in class and apply them to actual projects or in the work based learning program with no lecture	5