

Course Descriptions

Accounting

ACC 100 Business Accounting (Fa, Sp) 3 SCH

Business Accounting includes the theory and practice associated with double-entry accounting. Special emphasis is placed on the preparation of the documents necessary to complete the accounting cycle. Topics include: transactions, journals, financial statements, schedules, adjustments/closing entries, accounting cycle, cash control, bank reconciliation, and payroll. Prerequisites: None

ACC 120 Financial Accounting (Fa) 3 SCH

Emphasis on working with financial statements, notes receivables and payables, inventory valuation, depreciation, partnerships, financial analysis for a merchandising business. Commercial accounting software is used to solve problems. Prerequisites: None

ACC 125 Computerized Accounting (Sp) 3 SCH

This course covers small business accounting using QuickBooks software. Topics include printing reports, creating chart of accounts, recording customer and vendor transactions, processing payrolls, creating new companies, working with budgets, export to other software, and using the audit trail. Prerequisites: ACC 100 or higher with a grade of C or higher

ACC 130 Payroll Accounting (Fa) 3 SCH

Development of skills in preparing time cards, payroll registers, individual employee earnings records, payroll checks, governmental reports, and journal entries both manually and electronically. Included are the study of government regulations that affect payroll and controls needed in a payroll system. Prerequisites: None

ACC 140 Managerial Accounting (Sp) 3 SCH

Emphasis on accounting for corporations, cash flow and financial statement analysis; departmental and manufacturing accounting; and spreadsheet and commercial accounting software are used to solve problems. Prerequisites: ACC 120 with a grade of C or higher

ACC 260 Accounting for Nonprofit Organizations (Sp) 3 SCH

A survey of not-for-profit accounting and its primary users: federal, state and local governments, hospitals, and schools. Includes an exploration of the primary fund and accounting groups, review of the budget process, and examination of variances. Prerequisites: None

ACC 270 Tax Accounting (Fa) 3 SCH

A study and preparation of income tax returns and a study of tax regulations and forms. Prerequisites: None

Air Conditioning & Refrigeration

HVA 100 Refrigeration Theory (Fa) 4 SCH

How mechanical refrigerators operate; heat and heat flow; temperature measurement; pressure, and states of matter; the laws of refrigeration, and safety procedures. Prerequisites: None

HVA 110 Electrical Theory (Fa) 3 SCH

Generation of electricity, types of electricity - direct and alternating current circuit fundamentals, magnetism and electrical components. Prerequisites: None

HVA 120 Domestic Refrigeration (Fa) 3 SCH

Terminology associated with domestic refrigeration, identification of types of domestic refrigeration, location of data plates and their purpose. Also covered will be sealed system components, their function, operation, as well as locating and solving problems in a safe manner. Prerequisites: HVA 100

HVA 130 Controls & Motors (Fa) 3 SCH

Electric control circuits in ladder diagram, and pictorial form. Also covered will be ice-maker diagrams, comfort cooling controls, central air conditioning controls, pressure motor controls, motor safety controls, defrost controls and humidity controls. Prerequisites: HVA 110

HVA 140 Heating (Fa) 3 SCH

Terminology associated with heating and humidification. Heating equipment covered will include, gas heating systems, hydronic heating, electric heating and oil heating as well as humidification. Prerequisites: HVA 130

HVA 150 Cooling (Sp) 3 SCH

Focus on operation, installation, and service procedures for heat pumps and complete air conditioning systems. Prerequisites: HVA 130

HVA 160 Advanced Electrical Theory (Sp) 3 SCH

Course covers complex electrical circuits, reading from a diagram, and how circuits operate. Students will develop an understanding of electrical components and terminology to diagnose electrical problem related to HVAC and commercial electrical circuits. Prerequisites: HVA 110

HVA 170 Design & Blueprint Reading (Sp) 3 SCH

Learn to read plans and blueprints for new construction and be able to calculate loads for heating and cooling systems then design a HVAC system for residential setting. HVA 180 Commercial Refrigeration (Sp) 4 CREDIT

HVA 180 Commercial Refrigeration (Sp) 4 SCH

Study of condensing units, condensers, refrigerant controls, evaporators, and other components used in commercial refrigeration systems as well as diagnosing, testing, servicing and repair of commercial equipment. Safety for the technician, customer, and equipment are also covered. Prerequisites: HVA 150

HVA 185 Customer Service (Sp) 1 SCH

Enhances the student's ability to seek employment in the field of air conditioning, and to communicate with customers and businesses. Prerequisites: None

HVA 190 Project Management (Sp) 2 SCH

Application of technical skills with projects which include installing condensing unit, cooling coil, line set, and thermostat to the heating system. Students will also analyze performance of the heating and cooling system for proper operation. Prerequisites: HVA 180 Commercial Refrigeration Control Systems

HVA 199 Occupational Work Experience (Sp) 2 SCH

Supervised work experience in the public and private sector. Prerequisites: HVA 180; faculty recommendation

Automotive Collision Repair

ACR 104 Non-Structural Analysis and Damage Repair 1 (Fa) 4 SCH

This course provides an overview of the collision repair career opportunities, orientation, safety training, basics of metal straightening, and GMAW (MIG) welding fundamentals.

ACR 108 Non-Structural Analysis and Damage Repair 2 (Fa) 4 SCH

This course covers the application of metal finishing techniques as well as performance of GMAW (MIG) welding for collision repair and moveable glass operations. Instruction also includes the application of plastic body filler and metal cutting procedures for non-structural repair.

ACR 114 Non-Structural Analysis and Damage Repair 3 (Fa) 4 SCH

Students will perform body trim and molding removal and storage; outer body repairs, replacements, and adjustments; and complex metal straightening techniques. Students will understand the difference between direct and non-direct damage.

ACR 118 Non-Structural Analysis and Damage Repair 4 (Fa) 5 SCH

This course will instruct students in the use of plastic, composite material repairs, and replacements. Students will also receive instruction in weld on panel procedures including the use of GMAW (MIG) welding, panel bonding adhesives, and the use of Squeeze Type Resistance Spot Welding.

ACR 124 Painting and Refinishing 1 (Fa) 3 SCH

Students will identify safety and personal health hazards associated with refinishing operations to include paint mask fit test. Students will also identify different types of substrates and sanding materials relevant to surface preparation and distinguish among the various types of spray equipment.

ACR 128 Painting and Refinishing 2 (Fa) 3 SCH

Students will distinguish different types of primer materials applied to painted surfaces and bare metal or plastic surfaces. Instruction will also include identification of proper sanding procedures for different repair situations and the application of proper safety precautions. Instruction in paint gun adjustments for proper primer and paint applications will also be included.

ACR 134 Painting and Refinishing 3 (Sp) 3 SCH

Students will prepare a vehicle for undercoats and cleaning procedures for refinishing preparation. Students will apply procedures for mixing, catalyzing and activating paint; applying paint to a vehicle using a variety of spray techniques and spray equipment; and analyze and correct paint defects with proper procedures.

ACR 138 Painting and Refinishing 4 (Sp) 4 SCH

Students will prepare panels to be blended using proper paint procedures and practices; perform proper procedures and practices for refinishing plastic and composite parts; and learn how to color match paint through tinting and proper mixing procedures.

ACR 144 Mechanical and Electrical Components (Sp) 3 SCH

Students will study mechanical and electrical components that can be damaged as a result of collision and will learn how to find where the damage is located and identify proper repair procedures.

ACR 154 Structural Analysis and Damage Repair 1 (Sp) 2 SCH

This course will enable students to analyze structural damage and identify safety requirements pertaining to structural damage repairs. Students will identify types of welds used for structural repairs. This course will also study the use of different types of measuring equipment in order to learn and identify basic structural damage conditions.

ACR 158 Structural Analysis and Damage Repair 2 (Sp) 2 SCH

Students will measure and analyze frame damage to develop a repair plan. The course will provide students the opportunity to analyze and develop a repair plan for unibody vehicles.

ACR 164 Structural Analysis and Damage Repair 3 (Sp) 3 SCH

Students will raise and clamp a vehicle to perform structural repairs; perform structural straighten repairs on conventional body over frame and unibody vehicles; and learn and use proper welds for structural repairs.

ACR 168 Structural Analysis and Damage Repair 4 (Sp) 3 SCH

In this course, students will learn how to replace complex structural parts after pulling has been completed. Students will perform complex structural repairs to heavily damaged vehicles and study the role that fixed glass plays in the structural strength of a vehicle in a collision and the importance of proper replacement procedures.

Automotive Technology**AMT 111 Electrical Systems I 3 SCH**

This is an introductory course to automotive electrical systems diagnostics and service. Topics covered are the principles of basic electrical circuits, battery and starting circuits, and an introduction to basic automotive electronics. Diagnosis, testing and unit repair for each circuit are also taught. Prerequisites: None

AMT 116 Electrical Systems II 2 SCH

This advanced course builds on the material learned in AMT 111 Electrical Systems I. Subjects include charging and lighting, along with testing, diagnosis and unit repair for each circuit. Prerequisites: Complete AMT 111 with a grade of "C" or better

AMT 121 Engine Performance I 3 SCH

This is an introductory course to three areas of engine performance – Ignition, Fuel, and Emission Control systems. An introduction to computer control and electronics as related to ignition, fuel and emission control systems is also covered. Prerequisites: Complete AMT 116 with a grade of "C" or better

AMT 125 Engine Performance II 4 SCH

This course builds on the material learned in AMT 121 Engine Performance I. The areas of automotive electronics including microprocessors, sensors and actuators as related to ignition, fuel and emission control systems are studied. The operation and diagnosis/testing of these systems are also covered. Prerequisites: Complete AMT 121 with a grade of "C" or better

AMT 151 Steering & Suspension I 2 SCH

Areas taught are automotive/light truck steering and suspension systems theory, design, maintenance and service/repair. Subjects covered are straight axles, short/long arm independent suspension, and McPherson struts. Prerequisites: Complete AMT 180 with a grade of "C" or better

AMT 152 Steering & Suspension II 2 SCH

This course builds upon the material learned in AMT 151 Steering & Suspension I. Areas taught are steering and suspension geometry, diagnosis of tire wear, wheel alignment, and tire replacement/repair/balancing. Prerequisites: Complete AMT 151 with a grade of "C" or better

AMT 170 Brakes I 3 SCH

This course is a study of the basic theory and design of modern automotive and light truck braking systems. Adjustment, service and repair of drum and disc brake systems are taught, along with the diagnosis of braking problems. Prerequisites: Complete AMT 180 with a grade of "C" or better

AMT 171 Brakes II 2 SCH

This course builds upon the material learned in AMT 170 Brakes I. Subject areas taught include electronic controls - antilock brake systems, traction and stability control, and hybrid braking systems. Prerequisites: Complete AMT 170 with a grade of "C" or better

AMT 180 Electrical Systems III 3 SCH

This course builds on the material learned in AMT 116 Electrical Systems II. Subjects include instrumentation, accessory, and restraint systems. Testing, diagnosis and unit repair are taught for each subject area. Prerequisites: Complete AMT 116 with a grade of "C" or better

AMT 200 Automatic Transmissions and Transaxles I 3 SCH

Areas studied are automotive transmission/transaxle theory, design and service. The course introduces the basic concepts, and then proceeds from the simple to the more complex units. Areas included are power flow, hydraulic operation, electronic control, diagnosis and service. Prerequisites: Complete AMT 180 with a grade of "C" or better

AMT 201 Automatic Transmissions and Transaxles II 3 SCH

This course builds upon the material learned in AMT 200 Automotive Transmissions and Transaxles. Areas studied include automotive transmission/transaxle diagnosis, repair and overhaul. Prerequisites: Complete AMT 200 with a grade of "C" or better

AMT 205 Manual Transmissions and Transaxles 4 SCH

Addressed are areas of modern automotive manual drive-train and axle theory, design, maintenance, service and repair. The course will include flywheel and clutch design, manual transmissions, transfer cases, driveshafts and universal joints, constant velocity joints, differentials (conventional and limited-slip) and drive axles. Prerequisites: Complete AMT 180 with a grade of "C" or better

AMT 221 Engine Repair I 2 SCH

This class consists of the study of the basic theory, design and service of automotive/light truck engines. The class covers engine removal/replacement and in-vehicle repairs. Prerequisites: Complete AMT 125 and AMT 180 with a grade of "C" or better

AMT 250 Engine Repair II 3 SCH

This course builds upon material learned in AMT 221 Engine Repair I. Subjects taught are diagnosis, inspection, measurement and repair of automotive/light truck engines. Prerequisites: Complete AMT 221 with a grade of "C" or better

AMT 265 Engine Performance III 3 SCH

This course builds on the material learned in AMT 125 Engine Performance II. The course begins with a review of ignition, fuel and emission control systems. Diagnostic concepts as applied to Asian and advanced General Motors, Ford and Chrysler systems are studied. The course ends with a section on alternative power sources. Prerequisites: Complete AMT 125 with a grade of "C" or better

AMT 270 Electrical Systems IV 2 SCH

This advanced course builds on the material learned in AMT 111, 116, and 180. Areas of study are body control modules, anti-theft/security systems and automotive networking/multiplexing systems. An introduction to hybrid vehicles is also included in the course. Prerequisites: Complete AMT 180 with a grade of "C" or better

AMT 275 Heating and Air Conditioning 4 SCH

Areas studied are the theory, design and service/repair of automotive climate control systems. Safety practices and troubleshooting of heating, ventilation, and air conditioning (HVAC) systems used on cars and light trucks are taught. Prerequisites: Complete AMT 270 with a grade of "C" or better

Biotechnology

BIO 100 Introduction to Biotechnology Careers 2 SCH

This course will enable students who are unfamiliar with the area of biotechnology to investigate a variety of emerging careers, laboratory types, the education required to enter those careers, and the benefits of each. Prerequisite(s): None

BIO 150 Basic Laboratory Techniques 4 SCH

This course will prepare the student to practice safety and efficiently in the laboratory. Topics covered will include proteomics, laboratory safety, lab math, cGMP/cGLP, documentation, aseptic techniques, QA/QC, basics of microbiology, laboratory equipment, and job skills. Prerequisite(s): GED or High School Diploma, WorkKeys National Career Readiness Certificate, Silver level

BIO 225 Laboratory Safety 2 SCH

This course will enable the student to practice general safety procedures as well as the secure use and handling of biological and chemical materials in a laboratory setting. Topics covered will include safety procedures in Biosafety Level 2 and 3 labs, infectious disease, food security and national security agencies and regulations. Prerequisite(s): None; Co-requisite: BIO 226

BIO 226 Laboratory Safety Lab 1 SCH

This laboratory course will enable the student to practice general safety procedures as well as the secure use and handling of biological and chemical materials in various laboratory environments. Other topics covered will include safety procedures in Biosafety Level 2 and 3 labs, infectious disease, food security and national security agencies and regulations. Prerequisite(s): None; Co-requisite: BIO 225

BIO 250 Biotechnology Methods & Procedures I (Introduction) 3 SCH

This course introduces the basic skills and knowledge necessary to work in a biological or chemical laboratory. Emphasis is placed on good laboratory practices (cGLP), safety, solution preparation, and equipment operation and maintenance following standard operating procedures. Terminology for the molecular biology lab will be reviewed. Prerequisite(s): BIO 225/226; Co-requisite: BIO 251

BIO 251 Biotechnology Methods & Procedures I Lab (Introduction) 2 SCH

This laboratory course introduces the basic skills and knowledge necessary to work in a biological or chemical laboratory. Emphasis is placed on good laboratory practices (cGLP), safety, solution preparation, and equipment operation and maintenance following standard operating procedures. Terminology for the molecular biology lab will be reviewed. Prerequisite(s): BIO 225/226; Co-requisite(s): BIO 250

BIO 260 Biotechnology Methods & Procedures II (Proteomics) 2 SCH

This course will prepare students to use general strategies for molecular work and protein purification. Specific methods include determining specific activities for enzymes, extraction of proteins from bacterial cells, salting out, dialysis, ion exchange chromatography and polyacrylamide gel electrophoresis, ELISA's, electrophoreses and microarrays. Prerequisite(s) BIO 250/251, or permission of instructor; Co-requisite: BIO 261

BIO 261 Biotechnology Methods & Procedures II Lab (Proteomics) 3 SCH

This laboratory course will prepare students to use general strategies for molecular work and protein purification. Specific methods include determining specific activities for enzymes, extraction of proteins from bacterial cells, salting out, dialysis, ion exchange chromatography and polyacrylamide gel electrophoresis, ELISA's, electrophoresis and microarrays. Prerequisite(s) BIO 250/251, or permission of instructor; Co-requisite: BIO 260

BIO 270 Biotechnology Methods & Procedures III (Cell and Tissue Culture Techniques) 2 SCH

This course introduces students to the basic techniques used in culturing cells. Topics covered include sterile and aseptic technique, media preparation, cell count and viability, cryopreservation, subculturing, and research applications using cell cultures. Prerequisite(s) BIO 260/261, or permission of instructor; Co-requisite: BIO 271

BIO 271 Biotechnology Methods & Procedures III Lab (Cell and Tissue Culture Techniques) 3 SCH

This laboratory course introduces students to the basic techniques used in culturing cells. Topics covered include sterile and aseptic technique, media preparation, cell count and viability, cryopreservation, subculturing, and research applications using cell cultures. Prerequisite(s) BIO 260/261, or permission of instructor; Co-requisite: BIO 270

BIO 280 Biotechnology Methods & Procedures IV (Fermentation) 2 SCH

This course will enable students to work with a small-scale laboratory processes utilizing prokaryotic or eukaryotic cells in fermentation procedures. Topics include batch process records, fermentation theory, and medium formulation, techniques used for cell harvesting, as well as distillation, liquid-liquid extraction, different types of chromatography and emerging technologies for product recovery. Upon completion, students should be able to set up a fermentor; grow prokaryotic and eukaryotic cells, and isolate and collect various fractions derived from fermentation. Prerequisite(s) BIO 270/271, or permission of instructor; Co-requisite: BIO 281

BIO 281 Biotechnology Methods & Procedures IV Lab (Fermentation) 3 SCH

This laboratory course will enable students to work with a small-scale laboratory processes utilizing prokaryotic or eukaryotic cells in fermentation procedures. Topics include batch process records, fermentation theory, and medium formulation, techniques used for cell harvesting, as well as distillation, liquid-liquid extraction, different types of chromatography and emerging technologies for product recovery. Upon completion, students should be able to set up a fermentor; grow prokaryotic and eukaryotic cells, and isolate and collect various fractions derived from fermentation. Prerequisite(s) BIO 270/271, or permission of instructor; Co-requisite: BIO 280

BIO 290 Biotechnology Internship 5 SCH

This internship allows students to gain real job experience in the biotechnology industry before completion of the certificate. The intern will be placed in an industry involved in one of the program's focus areas. Prerequisite(s): Successful completion of all other courses in the Advanced Biotechnician Certificate program.

Building Trades

BTR 102 Safety Orientation (OSHA 10) (Fa) 1 SCH

This quality safety online training course is intended to inform students about the general hazards of construction work. Completion of the Construction Industry version, which is geared towards new construction projects, major renovation work, and demolition, will prepare students for work that will be completed at the job site. Prerequisite(s): None

BTR 106 Introductory Craft Skills (Fa) 3 SCH

This course will build foundational skills in the construction industry. Students will complete nine modules including modules in the greening of the industry as well as an introduction to construction drawings. Prerequisite(s): None

BTR 116 Carpentry Basics (Fa) 4 SCH

This course is designed to provide the student with a fundamental knowledge of the basic steps involved in all construction projects. While each carpentry task is somewhat different, most involve the same basic steps: working from blueprints, laying out the structure, assembling the structure, and checking the work afterward. Prerequisite(s): BTR 106

BTR 121 Floors, Walls & Ceiling Framing (Fa) 4 SCH

This course will cover framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials. The course will also describe the procedures for laying out and framing walls and ceilings including roughing-in door and window openings, construction corners and partition Ts, bracing walls and ceilings, and applying sheathing. Prerequisite(s): BTR 116

BTR 131 Roof Framing (Fa) 3 SCH

This course describes the various kinds of roofs and contains instructions for laying out rafters for gable roofs, hip roofs, and valley intersections. Coverage includes both stick-built and truss-built roofs. Prerequisite(s): BTR 121

BTR 136 Windows, Doors & Stairs (Fa) 3 SCH

This course describes the various types of windows, skylights, and exterior doors, and provides instructions for installing them. This course also includes instructions for installing weather-stripping and locksets. Additionally, the course will introduce students to the various types of stairs and the common building code requirements related to stairs. The module focuses on the techniques for measuring and calculating rise, run, and stairwell openings, layout of stringers, and fabricating basic stairways. Prerequisite(s): BTR 131

BTR 140 Cabinet Installation / Kitchen Design (Sp) 2 SCH

This course covers the application of carpentry to construct cabinets used in residential carpentry. Topics covered include kitchen location, design, arrangement of cabinets, lighting, standard cabinet sizes, cabinet materials, drawer guides, the work triangle, and building of cabinet units. Prerequisite(s): BTR 136

BTR 150 Drywall, Insulation, & Ventilation for Residential Construction (Sp) 5 SCH

This course presents instruction, application, and practice in drywall, insulation, and proper ventilation for residential construction. Prerequisite(s): BTR 140

BTR 160 Interior Finish Carpentry (Sp) 5 SCH

This course presents instruction, application, and practice in interior finish carpentry including door jambs, ceiling mold, hanging doors, installing baseboards, suspended ceilings, trim, painting, and molding used for residential construction. Prerequisite(s): BTR 150

BTR 170 Painting, Finishing & Decorating (Sp) 4 SCH

The purpose of this course is for students to prepare and apply the necessary finishes to enhance the project house. Prerequisite(s): BTR 160

BTR 262 Agricultural Structures (Fa, Sp) 2 SCH

The course is designed to provide students with the theoretical basis, knowledge and skills necessary for the construction/fabrication of agricultural structure type projects. Emphasis will be placed on: laboratory safety, general laboratory measurements, material selection, basic construction techniques, electrical theory and construction, and basic surveying. Prerequisites: None

Business Administration

BUS 100 Keyboarding (Fa, Sp) 1 SCH

The keyboarding course teaches and develops the ability to key alphabetic and numeric symbols by touch using proper techniques.

BUS 104 Skillbuilding (Fa, Sp) 3 SCH

This course will enable the student to gain speed and accuracy by applying systematic practice on a computer keyboard. Diagnostic software is used to determine the student's starting point and areas needed to improve. Successful completion of this course is measured by an increase in words per minute and a decrease in errors per minute. Blended format: face-to-face and online. Prerequisites: Proven ability to keyboard at 20 nwpm or higher for 5 min.

BUS 120 Business English (Fa, Sp) 3 SCH

This course will enable the student to master language principles for the information age. The student will develop language skills while gaining computer experience. The student will gain expertise in basic rules of English grammar, punctuation, capitalization, and number style. Prerequisites: None

BUS 125 Business Communication (Fa, Sp) 3 SCH

Areas of communication studied and applied are business writing, listening skills, face-to-face communication, and making presentations. Grammar, usage, and style will be reviewed and reinforced. Prerequisites: BUS 120 with a grade of C or higher

BUS 126 Introduction to Business (Fa, Sp) 3 SCH
Foundation course about business and its importance in a free market economy. The course includes the study of types of business ownership and operations. Business terminology is used to understand and interpret business news and information. Prerequisites: None

BUS 130 Records & Information Management (Fa, Sp) 3 SCH
Instruction in the creation, maintenance, protection, and disposition of records stored in a variety of media forms. Instruction will include the ARMA (Association for Records Managers and Administrators, Inc.) rules for filing, retrieving documents, and specialized functions such as micrographics and optical disk technology. Also included are laws relating to records management. Prerequisites: None

BUS 141 Medical Terminology (Fa) 3 SCH
This course will enable the student to use prefixes, suffixes, combining forms, and word roots to build medical terms; analyze component parts of medical terms to determine meaning; identify, pronounce, and define common anatomical terms related to the major body systems; and define basic terms and abbreviations used in documenting health records. Prerequisites: None

BUS 146 Medical Billing & Coding (Fa) 3 SCH
This course will enable the student to develop a basic knowledge of the national diagnostic and procedural coding systems and to simplify the process of filing claim forms. The student will be introduced to the major nationwide medical insurance programs. Prerequisites: BUS 141 with a grade of C or higher or concurrent enrollment

BUS 148 Advanced Medical Coding (Sp) 3 SCH
This course will enable the student to further develop a basic knowledge of the national diagnostic and procedural coding systems. The student will be able to accurately assign ICD-9-CM diagnosis codes, CPT procedure codes and modifiers, and HCPCS supply and medication codes to outpatient and inpatient services. Prerequisites: BUS 146 with a grade of C or higher

BUS 185 Business Ethics & Human Relations (Fa, Sp) 3 SCH
This course introduces contemporary and controversial ethical issues facing the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. The course emphasizes employability skills such as communication, work habits and attitudes, ethics, conflict management, motivation and problem solving, self-concept, perception, self-awareness, personality, values and communications. Prerequisites: None

BUS 199 Business Internship (Fa, Sp) 1 to 3 SCH
Business Internship will give students an opportunity to work in a business or governmental agency to apply competencies achieved in previous courses to current office conditions. Each student will be evaluated by the instructor and the supervisor in the office. Prerequisites: Completion of 20 program credit hours with 3.0 or higher GPA and permission of advisor

BUS 210 Workstation Management (Fa) 3 SCH
Study of computer components, software, and usage; troubleshooting software problems; preparing proposals for system purchases; performing Internet research; and safeguarding integrity of system components. Prerequisites: CIS 100

BUS 220 Administrative Procedures (Fa, Sp) 3 SCH
The focus will be on skills required in today's office. Topics include telephone, mail, business equipment, office layout and ergonomics, and meeting and travel planning. Time management, decision-making, critical thinking, prioritizing, and teamwork will be emphasized. Prerequisites: CIS 100

BUS 240 Integrated Applications (Sp) 3 SCH
Integrated Applications will give administrative support students a real-life exposure to business documents/projects and workflow. The utilization and integration of word processing, spreadsheet, database, and presentation software will be incorporated. Prerequisites: CIS 110 Word Processing, CIS 120 Spreadsheet Management, CIS 130 Database Management or concurrent enrollment with a grade of C or higher

BUS 250 Project Management (Fa) 3 SCH
This course is specifically designed to focus on the practical application of project management concepts. The student will gain the knowledge and tools needed to get projects started correctly and completed successfully. Prerequisites: None

BUS 275 Professional Development (Fa, Sp) 2 SCH
A study of professional workplace behavior; development of personal, educational, and professional career goals; and understanding of effective job-seeking skills. Also included is an overview of laws relating to labor relations, contracts, and personnel matters. Prerequisites: None

Computer Software

CIS 100 Software Applications (Fa, Sp) 3 SCH
This introductory course provides extensive hands-on experience with word processing, spreadsheet, database, and presentation software. Prerequisites: Must achieve a score of 20 nwpm with 5 or fewer errors on keyboarding pretest.

CIS 110 Word Processing (Fa, Sp) 3 SCH
Application of advanced word processing competencies. Topics include: preparation of documents as newsletters, letters, mailing labels; creation of outlines, tables, forms; management of complicated documents; customization of software; and integration of word processing software with other software programs. Prerequisites: CIS 100 with a grade of C or higher and keyboarding speed of 30 nwpm

CIS 117 Microsoft DOS Operating System (Fa, Sp) 1 SCH
This course introduces the standard Microsoft DOS operating system. The course is designed to give the students a working, hands-on knowledge of the commands and techniques used for manipulating and managing files at the DOS prompt level. Lab exercises make use of student activities diskettes that provide files that the students can manipulate. Prerequisite(s): Keyboarding skills and some familiarity with computer operation is recommended.

CIS 120 Spreadsheet Management (Fa, Sp) 3 SCH
Simulated business problems to create and maintain financial records. Tools used will include functions, templates, macros, charts, and databases. Spreadsheet files will be created using Microsoft Excel. Prerequisites: CIS 100 with a grade of C or higher

CIS 130 Database Management (Fa, Sp) 3 SCH
Database management includes designing and creating a database; displaying a database; adding, changing and deleting records; creating and using indexes and views; changing structures; using statistical functions; sorting; report and form generation; using query wizards, and macros. Prerequisites: CIS 100 with a grade of C or higher

CIS 150 Web Page Applications (Fa, Sp) 3 SCH
Web Page Applications includes planning and designing a web page, using both HTML and specialized software, working with templates, editing features, creating forms, using frames, and providing knowledge in the maintenance of web sites. Prerequisites: None

Computer-Aided Drafting Technology

DFT 103 Fundamentals of Drafting (Fa, Sp) 3 SCH

Basic concepts and skills of mechanical drawing using conventional, computer-aided drafting, and use and knowledge of tool, supplies, and equipment. Mechanical drafting fundamentals, using conventional drafting, will be presented, along with an explanation of standard drafting practices. Topics covered will include drafting equipment, media, sketching, and lettering and lines, geometric construction, multi-views, auxiliary views, sections, pictorials, and dimensioning. Practical and realistic math problems associated with drafting topics will also be covered. Must have a grade of C or higher to pass. Prerequisites: None

DFT 105 CAD Applications (Fa, Sp) 3 SCH

Concepts and skills of AutoCAD 2D and 3D applications. Topics include setup, drawing, editing, layer and line-type management, making prints, annotations and dimensioning, inquiry, and 3D dimensional drawing. Must have a grade of C or higher to pass. Prerequisites: None

DFT 110 Applied Descriptive Geometry (Fa, Sp) 3 SCH

A study of the graphic language for technicians in drafting covering fundamental concepts with an emphasis on logical reasoning, visualization, and practical applications of descriptive geometry and orthographic projection. Prerequisites: None

DFT 120 Structural Drafting: Concrete (Fa, Sp) 2 SCH

An introduction to the basic knowledge and skills necessary for entry-level employment in Concrete Detailing. Concrete Detailing is an instructional area within the framework of Architectural Drawing. Concrete Detailing includes the detailing of concrete necessary for light commercial, residential building, heavy commercial building, and frameworks. Topics covered include information and technique on concrete detailing for light commercial, residential concrete and concrete for heavy frameworks. American Concrete Institute standards will be followed. Prerequisites: None

DFT 130 Mechanical Drafting: HVAC/Plumbing (Fa, Sp) 3 SCH

Heating, Ventilation, Air Conditioning and Plumbing is an activity-based unit of technical drawing and information for those employed by architects, consulting engineers, and mechanical contractors. Topics include graphic representation and terminology of Heating, Ventilation, and Air Conditioning (HVAC) and Plumbing as applied to residential and commercial buildings. The course is designed for the preparation and interpretation of HVAC and plumbing working plans and details. Prerequisite(s): None

DFT 135 Mechanical Drafting: Electrical (Fa, Sp) 2 SCH

DFT 135 Mechanical Drafting Electrical is an activity based unit in Mechanical CAD drafting for those employed by architects, consulting engineers and mechanical contractors. Topics addressed in this course will be preparation and interpretation of electrical and electronic drawings for residential and commercial applications. National Electrical Code standards will be discussed and followed. Instruction is presented online mediated learning lectures, quizzes and drawing assignments. Prerequisite(s): None

DFT 160 Advanced CAD Applications (Fa, Sp) 3 SCH

An introduction and overview of Three-dimensional (3D) CAD and a review of the basic concepts of 2D CAD in a lecture and lab format. The course will explain 3D cad drafting techniques, commands and terminology. Additional topics covered will include external references, paper space vs. model space, dimensioning, scaling, UCS manipulation, slicing and rendering/modeling of three-dimensional solids. Instruction is through lectures, quizzes and CAD drawing lab assignments. Prerequisite(s): DFT 105 with a grade of C or higher.

DFT 170 Structural Drafting: Steel (Fa) 3 SCH

An activity based course that develops the knowledge and skills necessary for entry-level employment in Structural Steel Detailing within the framework of Architectural Drawing. Includes the framework drawings required for light commercial and residential buildings plus the framework drawings for larger buildings and construction, such as bridges and bents. Topics covered include information and technique on structural steel detailing for both light commercial and residential steel, heavy steel framework building, and other construction, such as bridges and bents. American Institute of Steel Construction standards will be followed. Weldment and fabrication of materials will be included in the course. CAD drawings are required to complete the assignments. Prerequisite(s): DFT 103 with a grade of C or higher

DFT 175 Structural Drafting: Wood (Fa, Sp) 2 SCH

An activity-based course that develops the knowledge and skills necessary for entry-level employment in Wood Detailing within the framework of architectural drawing. Topics include information and techniques for detailing of wood requirements in commercial and residential buildings. CAD drawing is required to complete assignments. Prerequisite(s): DFT 103 with a grade of C or higher.

DFT 180 Civil Drafting I: Site Plan (Fa, Sp) 3 SCH

Civil Drafting I – Site Plan/Details applies principles of civil layout practice to CAD drafting assignments. Students are required to complete problems in surveying traverse and plotting techniques, and interpreting surveyor's notes to construct topographic layouts. Topics to be covered include landscape details, commercial building plat layout and a residential subdivision. Instruction is presented online mediated learning lectures, quizzes and drawing assignments. Prerequisites: DFT 105 with a grade of "C" or higher.

DFT 215 Commercial Architectural Drafting (Fa) 3 SCH

Commercial Architectural drafting course is an overview of the basic concepts of commercial construction and detailing. With an emphasis on the commercial architectural aspects of the CAD drafting techniques, commands and terminology. Instruction is through lectures, quizzes and CAD drawing lab assignments. Prerequisite(s): DFT 105 with a grade of C or higher.

DFT 225 Residential Architectural Drafting (Sp) 3 SCH

An overview of the basic concepts of Residential construction and detailing in a lecture and lab format. The course covers residential drafting techniques, commands and terminology. Topics covered include line weight, dimensioning, scaling, presentation drawing, research of building material, and dimensioning. The student will also be introduced to the "Revit Architecture" software package. Instruction is through lectures, quizzes and CAD/Revit drawing lab assignments. Prerequisite(s): DFT 105 with a grade of C or higher.

DFT 230 Machine Drafting I: Details (Fa, Sp) 3 SCH

Development of skill in the use of handbooks, product catalogues and resource material to detail machine parts. Students are required to use catalogues to calculate size specifications of standard machine parts and assign tolerance for proper fit. The course requires satisfactory completion of CAD drawing assignments using Autodesk Inventor software. Prerequisite(s): DFT 105 with a grade of C or higher

DFT 235 Machine Drafting II: Assemblies (Fa, Sp) 3 SCH

Development of skill in the use of handbooks, product catalogues and resource material to detail catalogues to calculate size specifications to standard machine parts and assign tolerance for proper fit. The course requires satisfactory completion of CAD drawing assignments using Autodesk Inventor software. Prerequisite(s): DFT 103 with a grade of C or higher

DFT 250 Occupational Portfolio (Fa, Sp) 2 SCH
This course covers areas associated with job search. Topics include cover letter, resume, letter of application, interview techniques, and portfolio development. Collection and presentation of drafting projects will be put into portfolio format. Prerequisite(s): DFT 103, DFT 105, DFT 110, DFT 120, DFT 135, DFT 175

DFT 265 MicroStation (Fa, Sp) 3 SCH
DFT 265 is an activity based course that develops the knowledge and skills using MicroStation. The course will explain MicroStation drafting techniques, commands and terminology. Topics covered will include line weight, dimensioning, scaling, isometric sketching, editing techniques, and plotting. Instruction is presented online mediated learning lectures, quizzes and drawing assignments. Prerequisites: DFT 105 with a grade of "C" or higher.

DFT 285 Civil Drafting II (Fa, Sp) 3 SCH
DFT 285 Civil Drafting II – Civil 3D will give the student a base working knowledge of the AutoDesk Civil 3D software, civil theories and the math behind those theories. Students will apply the principles of civil layout practices to drafting assignments. Students are required to complete problems in civil construction detailing and a Civil 3D surface assignment. Instruction is presented online mediated learning lectures, quizzes and drawing assignments. The course requires satisfactory completion of drawing assignments. Prerequisites: DFT 180 with a grade of "C" or higher.

Continuing Education/ Workforce Development

Computer Courses

BUS 100 Keyboarding 1 SCH
Learn keyboarding skills or improve your current skill level. This course emphasizes proper keyboarding techniques, proofreading, speed, and accuracy. Prerequisite: none

BUS 105 Data Entry 1 SCH
Students will learn procedures and practice with equipment to develop skill in entering alphabetic and numeric data accurately and quickly. Prerequisite: none

Allied Health

ALH 001 Phlebotomy 3 SCH
Students will develop knowledge of the healthcare delivery system, medical terminology, infection control and safety. They will also practice techniques for specimen collection, equipment use and quality control in a lab setting.

NUR 050 Certified Nurse Aide (CNA) 5 SCH
This course is required for employment as an aide in Kansas long-term care facilities. Classroom learning and labs are supported by hands-on clinical experiences in area care facilities. Successful students will complete a test administered by the KS Department of Health and Environment (KDHE) to earn CNA certification. Prerequisite: CASAS reading test (administered at MATC)

NUR 060 Certified Medication Aide (CMA) 3 SCH
This course follows guidelines specified by the KS Department of Health and Environment (KDHE) for instruction related to employment as a CMA in long-term care facilities. Students participate in classroom, lab and clinical settings. Prerequisite: Kansas CNA certificate.

NUR 061 CMA Update 10 clock hours
This course follows guidelines specified by the Kansas Department of Health and Environment (KDHE) for required continuing education and recertification for certified medication aides.

NUR 070 Home Health Aide 1 SCH
This course is designed for Certified Nurse Aides who wish to work for a home health agency and care for clients in their homes. Students successfully completing this course will take a test administered by the Kansas Department of Health and Environment (KDHE) to earn HHA certification.

NUR 080 Restorative Aide 1 SCH
Nurse aides will develop skills needed to transfer the occupational and physical therapists' orders into daily nursing care. The course includes use of physical, occupational and restorative therapies. The training concludes with an internal assessment and, upon successful completion, RA certification.

NUR 090 I.V. Therapy 2 SCH
This course is designed to familiarize LPNs with I.V. administration methods and primary uses of I.V. therapy. Classroom instruction, labs and clinical experiences are included in the training. An RN will also find the course beneficial in maintaining competency.

Technical Training

Autodesk Inventor 3 SCH
Autodesk® Inventor® software provides a comprehensive set of design tools for producing, validating, and documenting digital prototypes. The Inventor model is a 3D digital prototype that helps users visualize, simulate, and analyze how a design will work under real-world conditions before a product or part is ever built.

Beginning Welding 3 SCH
This course is for anyone interested in learning welding techniques: electric arc, oxyacetylene and metal inert gas (MIG) welding are covered. Students must furnish welding gloves, helmet and pliers.

Dental Hygiene

DHT 102 Oral Anatomy, Head and Neck Embryology, and Histology 4 SCH
An introduction to anatomical systems with emphasis placed on head and neck anatomy. The support oral structures, embryology of the teeth, and tooth nomenclature are covered. Topics include the physiology and morphology of the deciduous and the permanent teeth along with basic dental terminology. Prerequisite(s): Acceptance into the Dental Hygiene program and proof of current American Heart Association CPR certification.

DHT 103 Dental Radiography 3 SCH
A study of radiation physics, hygiene, and safety theories with emphasis on the fundamentals of oral radiographic techniques and interpretation of radiographs. This includes: exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques. Prerequisite(s): Acceptance into the Dental Hygiene program and proof of current American Heart Association CPR certification.

DHT 105 Dental Hygiene Clinic I: Pre-Clinic 5 SCH
This course will provide foundational knowledge for performing clinical skills on patients, preparing the student for overall patient care in the clinical setting including use of basic dental equipment, patient assessment, documentation, patient education, preventative treatment, oral hygiene recommendations and auxiliary procedures. Emphasis is on principles, procedures, and professionalism for performing comprehensive oral preventive and therapeutic care. Under the direction of an instructor, students integrate hands-on skills with entry-level critical thinking and problem-solving skills. Clinical experiences are unpaid external learning experiences. Prerequisite(s): Acceptance into the Dental Hygiene program and proof of current American Heart Association CPR certification.

DHT 106 Dental Hygiene Clinic II 5 SCH

This course prepares the student for overall patient care in the clinical setting including use of basic dental equipment, patient assessment, documentation, patient education, preventative and therapeutic treatment, oral hygiene recommendations and auxiliary procedures. Under the direction of an instructor, students integrate hands-on skills with entry-level critical thinking and problem-solving skills. Clinical experiences are unpaid learning experiences. Prerequisite(s): Successful completion of all first semester courses with a GPA of 2.5 and a grade of "C" or above.

DHT 108 Periodontology 3 SCH

This course provides the dental hygiene student with an in-depth study of periodontal disease including: description of the inflammatory process and its relationship to the pathogenesis of periodontal disease; identification of etiological factors; classification of periodontal disease following a complete periodontal assessment; recognition of gingival conditions and risk assessment; description of periodontal surgical procedures; the recognition of periodontal emergencies; effectiveness of plaque control and nonsurgical periodontal therapy. Research and theoretical concepts are integrated for clinical application via case based learning. Prerequisites: Successful completion of all first semester courses with a GPA of 2.5 and a grade of "C" or above.

DHT 109 Preventative Dental Hygiene 3 SCH

This course introduces the student to the role of the dental hygienist in the dental health care system and the basic concepts of disease prevention and health promotion. Communication and behavior modification skills are emphasized to facilitate the role of the dental hygienist as an educator. Prerequisite(s): Acceptance into the Dental Hygiene program.

DHT 110 Oral Pathology 3 SCH

This course introduces the student to concepts related to general systemic and oral pathology. General principles of pathology include inflammation, immunity, neoplasia, and wound healing. Specific systems are explained, including cardiovascular, hematopoietic and skeletal systems. Basic pathology processes of oral conditions, their etiologies and treatments will be discussed. Prerequisite(s): Completion of DHT 101, DHT 102, DHT 103, and DHT 105 with a 2.5 GPA and a grade of "C" or above.

DHT 115 Nutrition and Oral Health 2 SCH

A study of general nutrition and nutritional biochemistry with emphasis on the effects of nutrition and dental health. Analysis of diet and application of counseling strategies to assist the patient in attaining and maintaining optimum oral health are stressed. Prerequisite(s): Successful completion of all first semester courses with a GPA of 2.5 and a grade of "C" or above.

DHT 205 Dental Hygiene Clinic III 5 SCH

This course builds on and expands the technical/clinical skills developed in Dental Hygiene Clinic I and II including root detoxification using hand and ultra-sonic instruments, advanced instrumentation techniques, use of oral irrigators, selection of dental implant prophylaxis treatment options, and administration of chemotherapeutic agents. The student will discuss comprehensive dental hygiene plans to meet oral needs, total body wellness. The treatment modifications for special patients will be described and demonstrated. Prerequisite(s): Successful completion of semesters one and two of the Dental Hygiene Program with a 2.5 GPA

DHT 206 Dental Materials 3 SCH

The study of dental materials including the physical and chemical properties and applications of the various materials that are used in dentistry. Student experiences include the manipulation of dental materials in the lab setting. Prerequisite(s): Completion of the first two semesters of the Dental Hygiene Program with a 2.5 GPA and a grade of "C" of above.

DHT 207 Pharmacology 3 SCH

This course is designed to help dental hygiene students understand pharmacology and methods of pain control as it relates to the practice of dentistry. The course focuses on adverse drug reactions, pharmacological effects, and their usual indications and contraindications. It emphasizes the clinical application of topical and local anesthesia. It discusses systemic toxicity and local complications to prepare students for the prevention and management of emergencies that may develop during treatment as well as sedation methods and general anesthesia. Prerequisite(s): Successful completion of DHT 102: Oral Anatomy and DHT 110: Oral pathology classes with a 2.5 GPA and a grade of "C" or above.

DHT 208 Dental Pain Management 3 SCH

This course is designed to help students learn to prevent and manage common emergencies related to administration of local anesthesia, prepare the armamentarium, and administer local anesthesia. The student will learn to monitor nitrous oxide sedation and recommend alternative pain and anxiety control. Prerequisite(s) Completion of the first two semesters of the Dental Hygiene Program with a 2.5 GPA and a grade of "C" or above.

DHT 210 Dental Hygiene Clinic IV 5 SCH

This course builds on and expands the technical/clinical skills developed in Dental Hygiene Clinic I, II, and III including managing all aspects of cases in the course of providing comprehensive care for various types of patients. The course emphasizes maximization of clinical efficiency and effectiveness. Prerequisite(s): Successful completion of semesters one, two, and three of the Dental Hygiene Program with a 2.5 GPA and a grade of "C" or above

DHT 211 Ethics, Legal Issues, and Kansas Law 2 SCH

This course examines of the dental hygienist's role in practice settings including dental office management, employment considerations, resume preparation, and job interviewing. Emphasis is on the laws governing the practice of dentistry and dental hygiene and the ethical standards established by the dental hygiene profession. Prerequisite(s): Successful completion of semesters one, two, and three of the Dental Hygiene Program with a 2.5 GPA and a grade of "C" or above.

DHT 212 Community Public Health and Education 3 SCH

Study of the principles and concepts of community public health and dental health education with an emphasis on community assessment, educational planning, implementation, and evaluation. Laboratory emphasizes methods and materials used in teaching dental health education in various community settings. Prerequisite(s): Completion of the first three semesters of the Dental Hygiene Program with a 2.5 GPA and a grade of "C" or above.DHT

DHT 213 Special Needs 2 SCH

Introduction to dental hygiene care for the medically or dentally compromised patient and special needs patient. Emphasis is on supplemental instrumentation techniques and patient management. Prerequisite(s): Successful completion of semesters one, two, and three of the Dental Hygiene Program with a 2.5 GPA and a grade of "C" or above.

Electric Power & Distribution**EPD 105 Climbing Skills** (Sp) 4 SCH

Introduction to proper methods of climbing wood pole structures. The student must master climbing wood pole structures with and without the use of a pole safety strap. Upon successful completion of this course, the student will be qualified in two methods of pole top rescue. Prerequisite: None

EPD 110 Pole Framing & Construction Specifications (Sp) 4 SCH

Introduction to Rural Electric Association line construction specifications and knowledge of pole framing on the ground and aerial framing. The student will gain a working knowledge of 7200 volt, 14,400 volt and 34,500 volt primary distribution systems. The student will also be introduced to copper and aluminum primary conductors and line staking. Prerequisites: EPD 105 with a grade of C or higher

EPD 120 Equipment Operation (Sp) 3 SCH
Mastery of safe operation of various digger/derrick trucks, bucket/ basket aerial platforms and trenchers commonly used in overhead and underground electric distribution work. The student will safely operate and perform routine maintenance and inspection on all units. Prerequisites: None

EPD 125 Setting & Replacing Poles (Sp) 1 SCH
Theory in pole setting and change-out techniques. Emphasis is placed on setting and replacing poles in energized lines with digger/derrick trucks. The student will also gain a working knowledge of the proper use of cover-up material, both hard shell and rubber goods; vehicle grounding practices; manual pole setting; temporary pole supports; and worksite hazard analysis. Prerequisites: Must have a grade of C or higher in EPD 110, EPD 120

EPD 130 Transformer Theory (Sp) 4 SCH
Introduction to basic electricity, related math, and transformer theory with hands-on experience in the installation and connection of single transformers and various three-phase transformer banks. Topic include transformer over voltage and over current protection; equipment grounding; cutout and lightning arrester use and installation; current and potential transformer applications; use of the VOM; and principles of troubleshooting. Prerequisites: Must have a grade of C or higher in EPD 110

EPD 135 Transformer Installation (Sp) 4 SCH
Experience in installation and connection of single transformers and various three-phase transformer banks. Other topic addressed are transformer over voltage current protection, equipment grounding, cutout and lightning arrester installation, current transformer applications, use of the Voltage Ohm Meter (VOM), and basic troubleshooting techniques are also practiced. Prerequisites: Must have a grade of C or higher in EPD 110

EPD 140 Service Installation & Metering (Sp) 4 SCH
Working knowledge of single- and three-phase watt hour meter applications with practical experience in the installation and sizing of service conductors, construction and installation of meter loops and poles, instrument metering, and temporary service installations. Tampering and power theft, grounding and safe work practices are also covered. Prerequisites: Must have a grade of C or higher in EDP 130, EDP 135

EPD 145 Conductor Installation & Repair (Fa) 4 SCH
This course focuses on the repair of various types of aluminum and copper conductors. Students will gain practical experience in the dead ending and splicing of conductors and installation of conductor shoes and clamps, and in the use of preformed line ties and service grips, bolt-on and compression connectors and sleeves, compression tools, strap hoists, pulling grips, sag charts and tables, mechanical jumpers, and grounding practices. Prerequisites: Must have a grade of C or higher in EPD 110

EPD 150 Rubber Gloving and Hot Sticking Methods (Fa) 3 SCH
This course introduces students to methods of working on energized distribution lines and equipment with rubber gloves, sleeves, and hot sticks from off the pole and insulated aerial platforms. Students will gain a working knowledge of the application, care and use of hard shell covers, rubber line hoses and blankets, personal protective equipment, hot-line tools, and live-line maintenance. The course also reviews operation of bucket/basket aerial platforms and pole top and bucket rescue techniques. Prerequisite(s): EPD 145 with a C or better

EPD 160 Underground Distribution (Fa) 3 SCH
Working knowledge of Underground Residential Distribution (URD) with practical experience in the direct burial of primary and secondary cables; installation of 200 and 600 amp elbows, splices, lightning arrestors, and overhead terminations; installation of single-phase and three-phase padmount and transclosure transformer installations; methods of shoring and sloping trenches and excavations; troubleshooting of primary and secondary cables; and fault location. The student will also review the operation of trencher digging equipment and safe work practices and procedures, proper grounding techniques of padmount transformers and transclosures. Prerequisites: Must have a grade of C or higher in EPD 130, EPD 135

EPD 170 Fusing & System Coordination (Fa) 1 SCH
A study of various methods of system coordination, knowledge of oil circuit reclosures, sectionalizing, and the application of fuses where students will learn to install and operate single-phase and three-phase pole mount reclosures, substation fuses and reclosures, and gang operated air-break and load-break switches. The course also provides review of proper grounding techniques on various OCRs, sectionalizers and gang-mounted switches. Prerequisites: Must have a grade of C or higher in EPD 135

EPD 180 Substations & Voltage Regulation (Fa) 4 SCH
A study of substations, capacitors, voltage regulators, auto-boosters; practical experience in substation grounding, inspections, substation maintenance; operation and installation of high side fuses, power transformers, substation buswork, and transfer switches; methods of voltage regulation, and Supervisory Control and Data Acquisition (SCADA). Prerequisites: Must have a grade of C or higher in EPD 140, EPD 150, EPD 170

EPD 195 Employability Skills (Fa) 1 SCH
Course provides students with experience in preparing resumes, contacting future employers, and interviewing with prospective employers. Students will also gain experience in the interview process through mock interview sessions provided to help prepare the student for actual interviews. Prerequisites: None

EPD 199 Utility Internship (Su) 8 SCH
Course provides practical work experience as an apprentice lineman with an operating utility and is completed between the first and second semesters. The student must spend at least eight clock hours in the computer learning center to develop his/her resume prior to interviewing for internship placement. Prerequisites: Must have a grade of C or higher in all first semester coursework and permission of instructor.

General Education

BSC 125 Anatomy and Physiology (Fa, Sp) 5 SCH
This course will enable the student to develop an understanding of the principles in structure and function of the human body systems. An intermediate study designed primarily for pre-professional students in health-related fields. The student will participate in three hours of lecture and four hours of laboratory per week. Prerequisites: Highly recommended Chemistry with a C or better

BSC 205 Microbiology (Fa, Sp) 5 SCH
This course will enable the student to identify disease causing microorganisms or agents and their role in the disease process, including principles of microbial cell structure, genetics, metabolism, immunity, and control. The student will also be able to demonstrate proficiency in standard laboratory techniques used in inoculation, isolation, incubation, inspection, and identification of bacteria. These techniques also include the examination of fungi, protists, and parasitic worms. In addition, the course will enable the student to demonstrate mechanisms in the prevention and treatment of infectious disease. Three hours of lecture/discussion and four hours of laboratory per week. Pre-requisite(s): BSC 125 Anatomy and Physiology or other 5 CREDIT-hour science class

COM 100 Workplace Writing (Fa, Sp) 3 SCH

Workplace writing emphasizes sentence and paragraph structure, organization, development, and grammatical correctness. It offers practice in writing letters, resumes, and academic and workplace documents. Prerequisites: None

COM 105 English Composition I (Fa, Sp) 3 SCH

Introduction to expository writing emphasizing expression of ideas, structure, organization, development, and grammatical correctness. Offers practice in researching, revising, and editing. Prerequisites: Compass score of 80 or better, 60-79 and E-write passed, or corresponding ASSET/ACT/SAT scores.

COM 110 Technical Writing (Fa, Sp) 3 SCH

This course is an introduction to professional and technical writing used in the workplace. The class offers practice in document design and editing. The types of correspondence include memos, letters, e-mail, reports, and instructional manuals. The course will focus on clarity, conciseness, document design, organization, audience recognition, audience involvement and accuracy. Collaboration and teamwork is stressed. Presentations will be practiced during class. Prerequisite(s): Compass score of 80 or better, 60-79 and E-write passed, or corresponding ASSET/ACT/SAT scores.

COM 115 Public Speaking (Fa, Sp) 3 SCH

This course is an elementary course in the study and practice of the basic principles of speech and interpersonal communication with emphasis on critical thinking, the creative and intelligent selection of material, organization and oral presentation. Prerequisites: None

MAT099 Workplace Mathematics (Fa, Sp) 2 SCH

This is a course that focus is on preparing students to succeed in college level mathematics. Topics include basic operations, fractions, decimals, percent, and measurement. Supplemental instruction will include overcoming math anxiety for academics and solving mathematical applications for the workplace. Prerequisites: None

MAT101 Technical Mathematics I (Fa, Sp) 3 SCH

This is an overview of mathematics course that focuses on technical applications. Topics include basic quantitative problem solving, algebra with technical applications, measurement, proportions, and geometry. This course is designed to provide students with the mathematical background necessary for entering technical career fields. Prerequisites: Appropriate COMPASS score or MAT 100 Workplace Mathematics

MAT108 Beginning Algebra (Fa, Sp) 3 SCH

This is an introductory algebra course that includes applications. Topics include a review of pre-algebra, variable expressions, solving algebraic equations, linear equations in two variables, inequalities and polynomials. Prerequisites: None

MAT109 Technical Mathematics II (Fa, Sp) 3 SCH

This is an algebra based mathematics course that focuses on technical applications. Topics include graphing linear equations, systems of linear equations, polynomials, factoring polynomials, quadratic equations, right triangle trigonometry and trigonometry with any angle. This course is designed to provide students with the critical thinking needed for solving complex technical problems and the mathematical background necessary to be successful in College Algebra. Prerequisites: MAT101 Technical Mathematics I or appropriate ASSET/COMPASS/ACT score

MAT110 Intermediate Algebra (Fa, Sp) 3 SCH

This course is designed for students who have only one year of high School algebra as a preparatory course for College Algebra. Topics covered will include Number Systems, Linear Equations and Inequalities, Lines, Systems of Linear Equations and Inequalities, Polynomials, Exponents, Rational Expressions and Quadratic Equations. Prerequisites: MAT108 Beginning Algebra or appropriate ASSET/COMPASS/ACT score

MAT 135 College Algebra (Fa, Sp) 3 SCH

College Algebra is a comprehensive overview of the fundamental concepts of algebra. Topics include quadratic equations, polynomial functions, rational functions, radical functions, logarithms, systems of equations and inequalities, matrices and determinants, and additional topics as time permits. This course will also focus on the analysis of graphs. Students will be required to have a graphing calculator. Prerequisites: Intermediate Algebra or appropriate COMPASS algebra score.

NTR 105 Nutrition (Fa, Sp) 3 SCH

This course offers information about the various nutrients essential to promoting growth and maintenance of the human body. Specific nutrient content identifies food sources, usages in the body as well as effects of deficiencies. Prerequisites: None

PSY 100 General Psychology (Fa, Sp) 3 SCH

This course is an introduction to the science of psychology with an emphasis on the principles which lead to a greater understanding of human behavior. A variety of laboratory experiences will be included in the course. Prerequisites: None

PSY 125 Human Growth and Development (Fa, Sp) 3 SCH

This course offers information concerning normal physical, psychological, and social development changes that occur in a person from birth to death. Specific information identifying factors which influence human development and changes in family structure and living during the life cycle are covered. Prerequisite(s): PSY 100 General Psychology recommended

SOC 100 Introduction to Sociology (Fa, Sp) 3 SCH

This course is an introduction to the study of the structure and function of human groupings, particularly those which occur in contemporary industrialized cultures. The relationships between the individual and his/her society, culture and society, and the social dynamics of institutions are investigated. Prerequisites: None

Information & Network Technology**CRT 110 Employability Skills (Fa, Sp) 1 SCH**

Discussion and scenarios are used to prepare for the world of work. Resume writing, customer relations and general job seeking and retention skills are covered. Prerequisites: None

CRT 115 INT (Information & Network Technology) Essentials (Fa, Sp) 1 SCH

This course will provide students with the necessary foundation of basic knowledge (in number systems, electronics, and computing) to enhance their ability to successfully progress through and complete the INT program. Prerequisite(s): None

CRT 120 Advanced Operating Systems (Fa, Sp) 3 SCH

This course covers personal computer operating systems in general. Topics include Overviews of Windows, DOS, Linux, and Mac OS, installation, configuration, and management. Microsoft Windows is the primary operating system (OS) used in this course to teach OS concepts but instruction is focused on properties and aspects of all computer operating systems. This course is one of three Information and Network Technology courses that enforce A+ certification skills. (CRT125, CRT150). Prerequisite(s): None

CRT 125 PC Hardware**(Fa, Sp) 3 SCH**

This course covers personal computer hardware including; hard drive sub-systems, interfaces, memory, motherboards and peripherals. Students will also be introduced to device drivers, electrostatic discharge, safety and proper device installation. This course is one of three Information and Network Technology courses that enforce A+ certification skills. (CRT120, CRT150). Prerequisite(s): None

CRT 144 UNIX Fundamentals**(Fa) 3 SCH**

The course is intended for new users of UNIX and teaches students how to use UNIX operating system commands. Students will learn fundamental command-line features of the UNIX environment including file system navigation, file permissions, the text editor, command shells and basic network use. This course utilizes the Linux operating system to teach basic UNIX commands, concepts and structure. Prerequisite(s): CIS 117 Microsoft DOS Operating System (Grade C or better)

CRT 148 Microsoft Windows Network Operating Systems (Sp) 3 SCH

This course is intended as an introduction to the current version of Microsoft's Windows network operating system. Material presented extends from creating a site plan, through installation, configuration, administrative management and finishes with disaster recovery. Installation and management of virtual servers and secure networking are integrated within coursework. Students utilize hands-on activities to reinforce presented concepts. Prerequisite(s): CRT 120 Advanced Operating Systems (with a grade of C or higher)

CRT 150 Microcomputer Troubleshooting**(Fa) 3 SCH**

This course presents and reinforces basic troubleshooting skills required by all IT professionals. This is accomplished by taking students through a rigorous procession of pre-bugged, real-world problems on various microcomputer configurations. Students gain extensive hands-on experience and hone analysis and synthesis skills. Microcomputer Troubleshooting is the third course specifically designed to enhance students' knowledge and skills as they are applicable to the CompTIA A+ certification as well as embed critical thinking ability; essential to an ever-changing industry. Prerequisite(s): CRT 120 Advanced Operating Systems (with a grade of C or higher); CRT 125 PC Hardware (with a grade of C or higher)

CRT 170 Networking Fundamentals**(Fa, Sp) 3 SCH**

This course introduces students to the essential concepts and skills that constitute the basic foundation of all networks. TCP/IP and Ethernet are the primary technologies used in the course to present network fundamentals. Course content also consists of WAN/LAN technologies, Network Addressing, IP Subnetting, the OSI model, encapsulation and path determination. This course is the first of four Cisco Networking Academy CCNA courses (Semester 1). Prerequisite(s): None

CRT 175 Routing Protocols and Concepts**(Fa, Sp) 3 SCH**

This course includes WANs, routers, router command line interface, router components, router startup and setup, router configuration, TCP/IP, IP addressing, VLSM, routing, routing protocols, and network troubleshooting. Routing Protocols and Concepts is the second course in the CISCO Academy Program (Semester 2). Prerequisite(s): CRT 170 Networking Fundamentals (with a grade of C or higher)

CRT 181 Network & Server Management**(Sp) 3 SCH**

This course provides the fundamental knowledge to implement and administer network management services in homes, small offices and other enterprise environments. Students learn effective techniques needed to install, manage, monitor, configure and troubleshoot networks. Other topics include: centralized event logging, time synchronization, remote desktop, remote installation, remote management, project management, disaster recovery, computer network policies, fault tolerance, packet analyzers, SNMP, central authentication, enterprise virus protection, encryption, centralized update and service packs, asset management, total cost of ownership, network performance monitoring, fault monitoring, change management, auditing and documentation. Prerequisite(s): CRT 120 Advanced Operating Systems (with a grade of C or higher); CRT 170 Networking Fundamentals (with a grade of C or higher)

CRT 207 Advanced Network Applications**(Fa, Sp) 3 SCH**

This course will cover server and client management and monitoring, network management and monitoring, application distribution, security and web-based applications including installation, management and troubleshooting of these applications. Prerequisite(s): CRT 144 Unix Fundamentals (with a grade of C or higher); CRT 148 Microsoft Windows Network Operating Systems (with a grade of C or higher)

CRT 280 LAN Switching and Wireless**(Fa, Sp) 3 SCH**

The focus of this course is on LAN switching and wireless LANs. The goal is to develop an understanding of how a switch communicates with other switches and routers in a small- or medium-sized business network to implement VLAN segmentation. This course also teaches how to integrate wireless devices into a LAN. Prerequisite(s): CRT 175 (with a grade of C or higher)

CRT 282 Network Security**(Fa, Sp) 3 SCH**

This course provides a comprehensive overview of the primary strategies and technologies used to defend a network including the knowledge and skills to design and implement essential technical solutions that provide the foundation level of security for all modern networks. Students will also learn the principles and practices of effective network policy and management practices. Prerequisite(s): CRT 280 (with a grade of C or higher) and concurrent enrollment in CRT 287 or CCNA certification.

CRT 287 Accessing the WAN**(Fa, Sp) 3 SCH**

The focus of this course is on accessing wide area networks (WAN). The goal is to develop an understanding of various WAN technologies to connect small- to medium-sized business networks. This course is an introduction to fundamental networking concepts and technologies. Prerequisite(s): CRT 280 (with a grade of C or higher)

CRT 290/ Network Troubleshooting**(Fa, Sp) 3 SCH**

This course covers essential concepts required for network troubleshooting, and describes how to use various resources to solve common network problems to maintain a network at peak performance. Troubleshooting and network analysis is an integral part of the network design process. Students will learn to track down problems and maximize their confidence that their networks are running properly. This course highlights some of the common pitfalls of network design and allows students to practice diagnosing and debugging the resulting problems. Prerequisite(s): CRT 150 Microcomputer Troubleshooting (with a grade of C or higher), CRT 207 Advanced Network Applications (with a grade of C or higher), CRT 287 WAN Theory and Design (with a grade of C or higher), or CRT 287 WAN Theory and Design concurrently

Medical Laboratory Technology

MLT 1203 Introduction to Medical Technology Lab 1 SCH

Laboratory skills involving measurement and instrumentation are introduced in this course. Topics to be covered include safety, medical terminology, laboratory mathematics, specimen collection, microscope use, staining procedures, professional behavior, ethics, use of general lab equipment, and introductory procedures in serology, urinalysis, chemistry, hematology, blood banking, and microbiology. Pre-requisite: Concurrent enrollment in SCCC's MT 1203.

MLT 2206 Hematology and Coagulation Lab 3 SCH

This course presents hematology principles including the formation of blood cells, identification of normal and abnormal blood cells as they correlate to disease. Coagulation is the study of the clotting mechanisms of the blood. All aspects of the coagulation system are covered including homeostasis, fibrinolysis, coagulation disorders, and factor deficiencies. The course is the application of theory by laboratory practice in both disciplines. Pre-requisites: Admission to the MLT program, concurrent enrollment in SCCC's MT 2206.

MLT 2306 Pathogenic Microbiology Lab 3 SCH

This course will survey routine microbiology procedures in the laboratory. Normal flora and possible pathogenic bacteria will be identified by morphology, staining characteristics, colonial morphology, growth on selective media, biochemical testing, and serological methods. Basic theory in antimicrobial susceptibility testing will be covered. Principles of all tests will be studied. Normal and pathogenic parasites and fungal elements will be identified and procedures utilized for proper identification. Pre-requisites: Admission to the MLT program, concurrent enrollment in SCCC's MT 2306.

MLT 2406 Clinical Chemistry Lab 3 SCH

This course will cover the basic interpretations of biochemistry by study of the concentration of enzymes, carbohydrates, lipids, proteins, electrolytes, and blood gases. The need for drug testing and evaluation will also be a part of this curriculum. The student will perform routine clinical tests on biological fluids, maintain quality assurance records, and perform preventative maintenance on instrumentation. This course will utilize computer technology to enhance student learning. Pre-requisites: Admission to the MLT program, concurrent enrollment in SCCC's MT 2406.

MLT 2506 Blood Bank and Serology Lab 3 SCH

This course will offer clinical application of the study of the immunology of blood, including those principles and practices that are known collectively as blood banking. Techniques relevant to blood banking in a donor or transfusion service and techniques used in serological diagnosis of acute bacterial infections, pregnancy, rheumatoid arthritis, infectious mononucleosis, rubella, and syphilis will be explored. Pre-requisites: Admission to the MLT program, concurrent enrollment in SCCC's MT 2506.

MLT 2703 Body Fluids Lab 1 SCH

Correlation of abnormal findings and disease states will be discussed as laboratory tests are performed on urine, feces, seminal, amniotic, cerebrospinal, pleural, pericardial, and peritoneal fluids. Discrimination between normal and abnormal findings and relating this knowledge to disease states will be included in the course material. Pre-requisites: Admission to the MLT program, concurrent enrollment in SCCC's MT 2703.

MLT 2907 Advanced Clinical Practicum 7 SCH

Seven credit hours clinical rotation. Students will work one-on-one with clinical instructors to refine clinical laboratory skills within a designated clinical affiliate laboratory. This rotation will include 480 hours of clinical practicum experience. This course will integrate knowledge gained in all MLT courses with practical experience in hematology, coagulation, chemistry, immunology, immunohematology, microbiology, urinalysis, and serology. Admission to the MLT program. Successful completion of all previous MLT courses.

Nursing

NUR 102 Medication Math 1 SCH

This course directs the student toward gaining proficiency in medication math calculations. Information is offered about the formulas and computations used in calculation of medication dosages and monitoring of intravenous fluid therapy. Specific principles used in converting measurements from metric, apothecaries, and household equivalencies appropriate to nursing care will be covered. Prerequisite: Admission to the PN program.

NUR 107 KSPN Foundations of Nursing 4 SCH

This course utilizes the nursing standards of practice based on principles of biology, psychosocial, spiritual and cultural to meet the needs of clients throughout the lifespan. Emphasis is placed on basic nursing skills, patient safety and therapeutic communication. Concepts and skills are enhanced in subsequent courses. Prerequisite: Admission to the PN program, and concurrent enrollment in NUR 108.

NUR 108 KSPN Foundations of Nursing Clinical 2 SCH

This course explores the art and science of nursing. Emphasis is placed on the nursing process, cultural and spiritual awareness, communication, data collection, performance of basic nursing skills, and documentation. Principles of safe medication administration are introduced. Prerequisites: Admission to the PN program, and concurrent enrollment in NUR 107.

NUR 111 KSPN Pharmacology 3 SCH

This course introduces the principles of pharmacology, drug classifications, and the effects of selected medications on the human body. The nursing process is used as the framework for ensuring safe and effective nursing care for clients across the lifespan. Prerequisite: Admission to the PN program.

NUR 117 KSPN Medical-Surgical Nursing I 4 SCH

This course focuses on the effect of disorders of selected systems throughout the lifespan and applies the nursing process in meeting basic needs. Health promotion and maintenance, rehabilitation and continuity of care are emphasized. The role of the practical nurse is incorporated throughout. Prerequisites: NUR 107 and NUR 108 and concurrent enrollment in NUR 118.

NUR 118 KSPN Medical-Surgical Nursing I Clinical 3 SCH

This course includes simulated and actual care situations of selected systems throughout the lifespan, utilizing acute and long-term care setting. An emphasis is placed on critical thinking and clinical decision-making skills. Prerequisites: NUR 107 and NUR 108 and concurrent enrollment in NUR 117.

NUR 133 Personal and Career Orientation 1 SCH

This seminar-style course provides orientation to the LPN role and responsibilities. Seminar sessions will be held during the spring semester. Prerequisites: NUR 117 and NUR 118.

NUR 134 KSPN Mental Health Nursing 2 SCH

This course explores basic concepts and trends in mental health nursing. Therapeutic modalities and client behavior management are discussed. Emphasis is placed on using the nursing process and meeting the basic human needs of the mental health client. Prerequisites: NUR 117 and NUR 118.

NUR 136 KSPN Gerontology 2 SCH

This course is designed to explore issues related to the aging adult using the nursing process as the organizing framework. Also discussed are the impact of ageism, alterations in physiological and psychosocial functioning, and the role of the practical nurse in caring for older adult clients. Prerequisites: NUR 117 and NUR 118.

NUR 137 KSPN Medical-Surgical Nursing II 4 SCH

This course focuses on the effect of disorders of selected systems throughout the lifespan using the nursing process in meeting basic needs. Prevention, rehabilitation and continuity of care are emphasized. The role of the practical nurse is incorporated throughout. Prerequisites: NUR 117 and NUR 118, NUR 111 and concurrent enrollment in NUR 138.

NUR 138 KSPN Medical-Surgical Nursing II Clinical 3 SCH

This experience uses simulated and actual care situations of selected systems throughout the lifespan, utilizing acute and long-term care settings. An emphasis is placed on critical thinking and clinical decision-making skill development. Principles of leadership for the practical nurse will be implemented, as well as multi-task management skills for transition as a practical nurse. Prerequisites: NUR 117 and NUR 118, and concurrent enrollment in NUR 137.

NUR 170 KSPN Maternal Child Nursing 2 SCH

This course focuses on pre- and post-natal maternal nursing care, as well as, the care of children from infancy to adolescence. Emphasis is given to normal reproduction and frequently occurring biological, cultural, spiritual and psychosocial needs of the child-bearing and child-rearing family. Prerequisites: NUR 111, NUR 117, NUR 118, NUR 137, and NUR 138, and concurrent enrollment in NUR 171.

NUR 171 KSPN Maternal Child Nursing Clinical 1 SCH

This clinical course applies concepts from Maternal Child I. Emphasis is placed on the nursing process and meeting the basic needs of the maternal child client. Prerequisites: NUR 117, NUR 118, NUR 138, and concurrent enrollment in NUR 170.

NUR 201 RN Transition Course 2 SCH

Focus is on the role transition from LPN to RN. It includes the review and/or validation of major content/concepts and skills from the Kansas PN Core Curriculum. Emphasis is placed on the transition of the LPN to the RN role, physical assessment skills, communication and critical thinking skills. The student's responsibility for learning, self-evaluation and collaboration is also emphasized. Prerequisites: Admission to the ADN program. Offered in a 4 week semester.

NUR 220 Nursing Across the Lifespan 10 SCH

Focus is on IV therapy, health promotion, illness prevention, and maintenance of health in acute or chronic conditions for individuals experiencing psychological, psychiatric, child bearing, and medical or surgical problems across the lifespan. Clinical experiences may be gained on the obstetric, pediatric, psychiatric, and medical-surgical units. Nursing role emphasis is on organizing care for individuals using the nursing process. Critical thinking differentiates client needs based on age, health status, acuity of condition, ethnic origins, and prognosis. The client's role within the family, his/her occupation, and society are taken into accounting. Principles and practices of IV Therapy are emphasized. Prerequisites: NUR 201.

NUR 230 Management of Patient Care 12 SCH

Focus is on the management of patient care for larger groups. Critical thinking is emphasized in the organization, coordination, and delegation of client care. Experience is provided in the care of patients with more acute or complex conditions in areas such as critical care, emergency room, and rehabilitation settings. Ethical and legal issues are explored as they related to nursing practice. Transition to the professional nursing role is revisited. Prerequisites: NUR 220.

Surgical Technology

STL 1005 Introduction to Surgical Technology Lab 2 SCH

This is a two credit hour lab course designed to provide the student with in-depth knowledge concerning the scope and practice of Surgical Technology. Students will be exposed to concepts of hospital structure and management and the physical environment of a surgical suite. Students will learn patient safety procedural issues such as identification, consent, chart review, and needs of the patient. Students will also study skills related to teamwork, professional credentialing and organizations, and legal and ethical issues. Prerequisite(s): Admission to the ST program and concurrent enrollment in SCCC's ST1005.

STL 1015 Principles & Practice of Surgical Technology 2 SCH

This is a two credit hour lab course designed to provide the student with in-depth knowledge concerning the scope and practice of Surgical Technology. Students will be exposed to concepts of hospital structure and management and the physical environment of a surgical suite. Students will learn patient safety procedural issues such as identification, consent, chart review, and needs of the patient. Students will also study skills related to teamwork, professional credentialing and organizations, and legal and ethical issues. Prerequisite(s): Admission to the ST program and concurrent enrollment in SCCC's ST1015.

STL 1110 Surgical Procedures I Lab 5 SCH

This is a five credit hour clinical course designed to allow the student to begin to apply skills learned in the first semester to real life procedures. With the web-based learning platform and clinical practice the student will learn to select instrumentation and other supplies for specific procedures. The student will apply learning in anatomy and pathophysiology, and techniques from first semester in the practical experience of passing instruments to the surgeon in the clinical setting. The student will apply the basic skills of aseptic technique both in the laboratory setting and the clinical practicum as well as the basic terms and usages of medical terminology. Prerequisite(s): Admission to the ST program and concurrent enrollment in SCCC's ST1110.

STL 1707 Surgical Procedures II Lab 4 SCH

This is a four credit hour clinical course designed to allow the student to learn to select instrumentation and other supplies for surgical procedures. The student will learn more difficult procedures and continue the learning process from Surgical Procedures I. In the surgical suite of the clinical areas the student will be able to demonstrate the more advanced skills of the Surgical Technologist. The student will also be encouraged to further develop his/her sterile consciousness in order to work more confidently within the operating room. Job interviews with resumes will also be covered. Prerequisite(s): Admission to the ST program and concurrent enrollment in SCCC's ST1707.

Welding Technology

WLD 100 Welding Theory (Fa) 2 SCH

An introduction to theories of welding Shielded Metal Arc, Gas Metal Arc, and Gas Tungsten Arc. Prerequisite(s): None

WLD 110 Welding Metallurgy (Fa) 1 SCH

A study of the effects of heat on the structure of metal and with what happens to metal when certain alloying elements are added to it. Prerequisite(s): None

WLD 115 Blueprint Reading (Fa) 2 SCH

The intent of this course is to provide instruction in proper reading and interpretation of welding symbols and fabrication layout designs. Prerequisite(s): None

<p>WLD 120 Oxy-Acetylene Welding (Fa) 2 SCH Practice properly set-up and operate oxy-fuel torch outfit safely, to make several weld samples on mild steel metal in all positions, and to properly operate all oxy-fuel, plasma, and carbon arc gouging to make proper cuts and bevels on a variety of materials and thicknesses. Prerequisite(s): None</p>	<p>WLD 170 Gas Tungsten ARC Welding I (Sp) 2 SCH Practice in proper set-up and operation of TIG welding equipment to weld in all positions by using mild steel and stainless steel. Prerequisite(s): None or Permission of Instructor</p>
<p>WLD 130 Cutting Processes (Fa) 2 SCH Includes cutting of ferrous metals with manual, motor driven, and oxy-fuel shape cutting equipment. Also included is high-energy plasma-arc and carbon arc cutting. Prerequisite(s): None</p>	<p>WLD 175 Gas Tungsten ARC Welding II (Sp) 3 SCH Practice in proper set-up and operation of TIG welding equipment to weld in all positions using aluminum. Prerequisite(s): WLD 170</p>
<p>WLD 140 Shielded Metal ARC Welding I (Fa) 3 SCH Practice in proper set-up of ARC welding equipment to weld in all positions on mild steel plate. Prerequisite(s): None or Permission of Instructor</p>	<p>WLD 190 Project Management (Sp) 2 SCH Capstone course utilizing welding and cutting skills combined with layout, design and metal working procedures, such as using power brakes, rolls, blueprint reading, math and special formula skills in project format. Prerequisite(s): 20 credits in WLD & Permission of Instructor</p>
<p>WLD 145 Shielded Metal ARC Welding II (Fa) 4 SCH Shielded metal arch welding safety, theory, and manipulative skills in the vertical and overhead positions. Prerequisite(s): WLD 140</p>	<p>WLD 195 Employability Skills (Sp) 1 SCH Develop skills in computers usage, speed reading, resume writing, human relations, personal and professional development. Prerequisite(s): None or Permission of Instructor</p>
<p>WLD 150 Gas Metal ARC Welding I (Sp) 2 SCH Instruction in proper set-up and operation of MIG welding equipment to weld in all positions using sheet metal and steel plate, as well as several different sizes, wires and types of gasses. Prerequisite(s): None or Permission of Instructor</p>	<p>WLD 199 Occupational Work Experience (Sp) 2 SCH Planned work experience in the workforce which is supervised by a welding professional and monitor by an instructor. Prerequisite(s): 20 credits in WLD & Permission of Instructor</p>
<p>WLD 155 Gas Metal ARC Welding II (Sp) 3 SCH Instruction in proper set-up and operation of MIG welding equipment to weld in all positions using aluminum, as well as several different sizes, wires and types of gasses. Prerequisites: WLD 150</p>	<p>WLD 260 Agricultural Construction (Sp) 3 SCH The course is designed to provide students with the theoretical basis, knowledge and skills necessary for the construction/fabrication of metal projects. Emphasis will be placed on: laboratory safety, general laboratory measurements, metal identification/characteristics, oxyacetylene welding and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), gas tungsten arc welding (GTAW), plasma cutting, and project construction. Prerequisite(s): None</p>
<p>WLD 160 Flux Cored Arc Welding (Sp) 2 SCH A study of the use of self-shielded flux cored and gas-shielded flux cored tubular wire electrodes. Prerequisite(s): None or Permission of Instructor</p>	