

Course Syllabus Report

Iowa Lakes Community College

Course Syllabus

Course Number: PSY 121

Course Title: Developmental Psychology

Credit Hours: 3.00

Lecture Hours: 52.80

Lab Hours: 0.00

Clinical Hours: 0.00

Work Experience Hours: 0.00

Meeting time/location:

Instructor:

Phone:

Email:

Office Location:

Office Hours:

Course Description

Studies human development from conception through the lifespan. Physical, emotional, social, cognitive and moral aspects are studied in the classroom, by lecture, file/video, projects, observation and by reading the literature. (Formerly PY-223A)

Course Requisites

Course Competencies

- Understand the major theories emphasizing interaction of heredity and environment.
- Be familiar with prenatal and newborn development.
- Be familiar with physical development, perceptual development, social development and cognitive development and how they progress over the life span.
- Understand how personality develops over the life span.
- Be familiar with life stages from birth to death.
- Understand how development is influenced by families, school and culture.

Student Learning Outcomes

Policies

Students must abide by all policies as stated in the Iowa Lakes Community College Student Handbook.

Students should be aware that classes might be audio or video recorded by one or more students. The college's policies governing the audio or video recording of class are included in the Student Handbook. Students who have any questions or concerns about class recordings should address their questions or concerns with the instructor at the beginning of the semester.

Student Academic Honesty Policy

Iowa Lakes Community College believes that personal integrity and academic honesty are fundamental to scholarship. Iowa Lakes strives to create an environment where the dignity of each person is recognized and an atmosphere of mutual trust exists between instructors and students. The faculty has confidence in the integrity of the students and encourages students to exercise good judgment in fulfilling this responsibility.

Actions contrary to academic integrity will not be tolerated. Activities that have the effect or intention of interfering with learning or fair evaluation of a student's work or performance are considered a breach of academic integrity. Examples of such unacceptable activities include, but are not limited to:

- Cheating (intentionally using or attempting to use unauthorized material, assistance or study aids in my academic work). For example, using a cheat sheet for a test, looking at another student's paper during an exam, stealing or buying all or parts of an exam or paper, altering and resubmitting work for a better grade without prior approval to do so, etc.
- Plagiarism (representing another's ideas, words, expressions or data in writing or presentation without giving proper credit, failing to cite a reference or failing to use proper documentation, using works of another gained over the Internet and submitted as one's own work).
- Falsification and/or misrepresentation of data (submitting contrived or made-up information in any academic exercise). For example, making up data, citing non-existent sources, etc.
- Facilitating Academic Dishonesty (knowingly helping or attempting to help another violate any provision of the academic honesty policy). For example, working together on a take-home exam or other assignment when the option has not been made available, giving a paper/assignment to another student for his/her use, etc.
- Multiple Submissions (submitting, without prior approval from the instructor involved, any work submitted to fulfill academic requirements in another class). For example, submitting the same paper for two different classes, etc.
- Unfair Advantage (trying to gain unauthorized advantage over fellow students). For example, gaining or facilitating unauthorized access to exam materials (past or present); interfering with another student's efforts in an academic exercise; lying about the need for an extension on a paper or assignment; destroying, hiding, removing or keeping library materials, etc.

Disciplinary Action

Any violation of this policy will be treated as a serious matter. The instructor has primary responsibility over classroom behavior and maintaining academic integrity. Students who earn an “F” based on any violation of the Student Academic Honesty Policy may not withdraw from the class (and receive a grade of W). Depending on the nature and severity of the offense, Iowa Lakes Community College reserves the right to exercise disciplinary action as outlined in the Disciplinary Action Section of the Student Handbook.

Americans With Disabilities Act – Policy Of Nondiscrimination

It is Iowa Lakes Community College policy to not discriminate against qualified individuals with disabilities and to provide reasonable accommodation(s), as required by law, to otherwise qualified applicants for admission or to students with disabilities in all education programs, activities, services and practices, including application procedures, admissions, course selection, the awarding of degrees, discipline and dismissal. Educational opportunities will not be denied to an otherwise qualified application or student because of the need to make reasonable accommodation(s) or modification(s) for the physical and mental impairment(s) of any such individual.

Iowa Lakes Community College students needing reasonable accommodation(s) and/or modification(s) should contact Jody Condon by phone at (712) 362-5219 or via email at jcondon@iowalakes.edu. To assure that accommodation(s) and/or modification(s) will be ready when classes start, students must make the request as soon as possible, before a semester begins. It is the policy of Iowa Lakes Community College not to discriminate on the basis of sex, race, national origin, creed, age, marital status or disability in its education programs, activities, or employment policies, as required by Titles VI and VII of the 1964 Civil Rights Act, Title IX of the 1972 Educational Amendments, Section 504 of the Federal Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act (ADA) of 1990.

Inquiries regarding compliance with Title IX, Title VI, Title VII, or Section 504 may be directed to Kathy Muller, Human Resources, Iowa Lakes Community College, 19 S. Seventh Street, Estherville, IA 51334, telephone (712)362-0433; to the Director of the Iowa Civil Rights Commission, Des Moines; or to the Director of the Region VII Office of Civil Rights, Department of Education, Kansas City, Missouri.

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| ACC-111 | Introduction to Accounting | 3.00 |
| <p>This course is designed to teach the key concepts and skills required to record a variety of accounting entries for both a service and merchandising business, to prepare financial statements, to record payroll entries, to prepare payroll records and to utilize good cash management skills. The skills learned will prepare students for direct job entry as small business owners and entrepreneurs. These accounting concepts are applied to a variety of companies.</p> | | |
| ACC-131 | Principles of Accounting I | 4.00 |
| <p>This course is designed to acquaint the student with the basic accounting concepts applicable to the operation of a service oriented or retailing sole proprietorship.</p> | | |
| ACC-132 | Principles of Accounting II | 4.00 |
| <p>This course is a continuation of Principles of Accounting I with the emphasis on partnership, corporation, cost, and management accounting. Prerequisite: ACC-131</p> | | |
| ACC-161 | Payroll Accounting | 3.00 |
| <p>This course presents the payroll accounting methods for computing wages and salaries, calculating deductions, journalizing payroll entries, and preparing federal and state government reports. It emphasizes the timeliness and standard procedures of payroll data reporting required of employers. Prerequisite: ACC-111 or ACC-131</p> | | |
| ACC-171 | Sales & Use Tax | 1.00 |
| <p>This course covers sales and use tax's constitutional basis, tax basis, administration (including collection and remittance procedures), and audit defense.</p> | | |
| ACC-221 | Cost Accounting | 3.00 |
| <p>This course covers the procedures necessary for the accumulation and analysis of accounting information in a manufacturing setting. Topics covered include job-order, process cost, and standard cost systems as well as variance analysis and budgeting. Prerequisite: ACC-132</p> | | |
| ACC-231 | Intermediate Accounting I | 4.00 |
| <p>This course is an in-depth study of the underlying principles, procedures, and reporting requirements necessary to prepare and interpret the financial reports of business entities. Studies include a theoretical foundation of financial accounting, financial statements, cash, receivables, inventory, operational assets and depreciation. Prerequisite: ACC-132</p> | | |
| ACC-232 | Intermediate Accounting II | 4.00 |

This course is an in-depth study of the underlying principles, procedures, and reporting requirements necessary to prepare and interpret financial reports of business entities. Topics covered include liabilities, investments in securities, pension plans, leases, earnings per share, and statement of cash flows.

Prerequisite: ACC-231

ACC-261 Income Tax Accounting 3.00

This course is an introduction to federal individual income tax laws. Topics include income, adjustments, deductions, and credits. Prerequisite: ACC-131

ACC-311 Computer Accounting 3.00

This course utilizes computer software to teach the accounting procedures for service and merchandising businesses. Concepts include processing transactions and generating reports for customers, vendors, inventory, and payroll; generating financial statements; performing closing procedures; and, customizing company setup. Prerequisite: ACC-131 or ACC-111

ACC-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ACC-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ACC-975 Service Learning 1.00

This course integrates service in the community with practical application of the competencies learned in program coursework. It involves a coordinated effort among the student, WITCC faculty member, and a work supervisor in a non-profit community organization that will meet identified community needs and advance the students' understanding of course related content. Permission of instructor and 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor is required.

ADM-105 Introduction to Keyboarding 1.00

This course emphasizes keyboard mastery. It was designed to develop accuracy, speed, and control of the keyboard. Through completion of the lessons, students advance toward a minimum competency level of 30 gross words per minute (GWAM) on a 3-minute official time with a maximum of 3 errors. The alphabetic keys are reviewed three times. In order to pass this course at the end of the

semester, you must be able to key 30 wpm for 3 minutes with 3 errors or less. Every lesson contains exercises of 15-sec., 30-sec., and 1-3 minutes timings. Students are encouraged to meet the speed and accuracy goals in each exercise before continuing on to the next exercise. Progress Reports help students evaluate their progress. Using the backspace key and correcting errors is not allowed.

ADM-123 Document Formatting 3.00

This course is designed for mastery of the alphabetic keyboard. Students will review numeric and symbol keyboard reaches and the formatting of business documents including memorandums, block and modified block letters, reports and tables. Students must take the prerequisite course or type 30 gross words a minute for three minutes with three errors or less. Prerequisite: ADM-105 or Type 30 gross words a minute for 3 minutes with 3 errors or less

ADM-124 Document Formatting II 3.00

In this course students' keyboarding skills are enhanced by developing a balance of speed and accuracy. Emphasis is placed on the development of production skills in formatting business documents and learning advanced features of word processing using the computer. Prerequisite: ADM-123

ADM-131 Office Calculators 1.00

This course teaches students how to use the numeric keypad with speed and accuracy using industry standards for data entry. Attaining proficiency on three employment tests used by three large interstate corporations helps the student meet employment standards.

ADM-154 Business Communication 3.00

This course covers the principles of business writing, emphasizing the most important and frequently written business correspondence including business letters, memorandums, and e-mail. Attention is given to logical organization and psychological application of writing procedures as well as proper formatting at the keyboard. Students cover units most appropriate to the needs of their individual programs.

ADM-159 Proofreading and Editing 3.00

This course covers the proofreading and editing of handwritten, typewritten, and printed material. Grammar principles including sentence structure and correct usage of all parts of speech are addressed, as well as a strong emphasis on punctuation skills. Students will also learn techniques in utilizing business reference tools and language skills within the context of a business environment.

ADM-162 Office Procedures 3.00

This course familiarizes the student with the many dimensions of the professional secretary's position in a modern day office, such as personal traits, telephone

skills, communication processing capabilities, office supplies and equipment, and material utilization. The specific job skills introduced are utilization of business resources, making travel arrangements, arranging meetings and conferences and performing banking responsibilities. The student will be equipped to handle these functions in a modern day office, and will refine skills associate with communication effectively in the office.

ADM-176 Electronic Records System 3.00

This course provides students the opportunity to create, collect, process, maintain, retrieve, use, store, disseminate, and dispose of records using an electronic records system. Students use the Windows environment to store records according to ARMA (Association of Records Managers and Administrators) alphabetic rules. Numeric, geographic, and subject filing rules are also explored. Students will research and present up-to-date information on retention, retrieval, and storage of records.

ADM-180 Administrative Management 3.00

This course acquaints students with the broad areas of administrative office management, including the managerial process. It emphasizes application of learned concepts through problem-solving techniques, and includes several specialized areas of study which are generally relegated to office managers. Prerequisite: ADM-123, ADM-159

ADM-241 Advanced Office Skills 3.00

The course is a terminal course for office students to demonstrate their knowledge and skills in administrative office procedures and practice. A variety of formats will be used for students to demonstrate proficiencies, including Microsoft Office software review, electronic calendaring and scheduling, proofreading and editing, keyboarding speed and document production, and certification testing. Instructor consent required.

ADM-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn elective credit based upon the agreed upon credit and contact hours. Instructor permission required.

ADM-932 Internship II 1.00 - 4.00

This course provides on-the-job experience on campus or in the business community giving the student experience and practical application of the competencies learned in the Administrative Assistant programs. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Student must be in the final semester of the program before

enrolling in this course. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor.

ADM-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ADN-235 Principles Pharmacology for Nursing 3.00

This course will examine the basic concepts and principles of pharmacology. Major drug classifications and their actions, adverse effects, interactions, and contraindications for use are explored. Emphasis is placed on the nurse's role in safe medication administration, dosage calculation, and patient education with use of the nursing process.

ADN-621 Nursing III 9.00

A combined course that includes: classroom, lab, and clinical. Nursing III prepares the student to safely manage the care of clients throughout the lifespan and prepares the student for the role of caregiver, manager, and member of profession from the level of the practical nurse to the registered nurse. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Emphasis is placed on predictable and variable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and incorporated throughout the course. Prerequisite: Advisor permission required. Completion of WITCC Practical Nursing Program or valid LPN license and 6-8 hours of anatomy and physiology. Prerequisites for the hybrid online section: valid LPN license and 6-8 hours of anatomy and physiology, proof that all required support courses for the ADN Completion Program have been completed.

ADN-622 Nursing IV 9.00

A combined course that includes: classroom, lab, clinical, and preceptorship. Nursing IV prepares the student to safely manage the care of clients throughout the lifespan and prepares the student to assume the registered nurse (RN) roles of caregiver, manager, and member of profession. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Emphasis is placed on the predictable and variable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and is incorporated throughout the course. Clinical preceptorship provides an opportunity for students to mentor with a RN. Students will practice clinical and leadership skills necessary to successfully transition into the role of an entry-level RN. Focus is placed on the enhancement of leadership and

collaboration skills, organization, supervision, delegation, prioritization, and management of multiple clients in an acute care setting. Prerequisite: ADN-621, BIO-186, PSY-241, Valid LPN license and advisor permission,

ADN-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ADN-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGA-114 Principles of Agronomy 3.00

This course presents the information necessary to understand the reasons and methods of soil and crop management. The course provides answers to practical crop production questions and introduces students to further study of the sciences involved.

AGA-154 Fundamentals of Soil Science 3.00

This course covers soil properties affected by their formation due to climate, vegetative cover, parent material, drainage, and topography.

AGA-158 Soil Fertility 3.00

This course explains the phenomena involved in making and keeping a soil in its most economical, productive state. Students learn why soils must be managed differently due to differences in origin and make up. Laboratory work will be used to increase the understanding of key concepts. Corequisite: AGA-154

AGA-917 Experimental Course 1.00 - 4.00

This pilot course is under supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGA-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGB-210 Agricultural Law 2.00

This course is designed to make the student aware of the legalities of the farm business in regard to estate planning, leasing, contracts, and legal liability.

AGB-235 Introduction to Agriculture Markets 3.00

This course is an overview of the structure, economics, organization, and function of the world food marketing system. Topics in past, present and future domestic and worldwide market issues are discussed. The course examines how the marketing system is influenced by governmental and private policy and effects those policies have on producers, commodity handlers, processors, middlemen, and consumers. Basic marketing and merchandising strategies are also covered.

AGB-330 Farm Business Management 3.00

This course is a study of the use of the principles of farm management in developing a farm or farm business operation.

AGB-331 Entrepreneurship in Agriculture 3.00

This course relates specifically to management of agriculture farms and businesses. Course content emphasizes budget planning, record keeping, record analysis, Ag finance/credit, and machinery and land management. Management exercises simulating farm activities and decisions are incorporated. Computers are used to aid in the completion of these management exercises.

AGB-336 Agricultural Selling 3.00

This course addresses the principles of selling applied to agricultural settings. Examination of agricultural consumers' buying habits and the development of sales strategies to meet these consumers' needs and wants serves as a foundation of the course. Two main activities dominate this course: students spend a day shadowing an agricultural sales professional to observe and report on specific practices, and in a final activity, students prepare and deliver a sales presentation to an agricultural sales professional.

AGB-437 Commodity Marketing 3.00

This course examines basis, fundamental and technical price analysis, commodity futures, futures options, alternative cash contracts, sources and uses of marketing information, and relevant agricultural marketing strategies.

AGB-466 Agricultural Finance 3.00

This course is a study of the terminology and tools of agricultural finance. It emphasizes the preparation of financial statements, cash flows, budgets and bookkeeping principles. It also discusses financial risk strategies and credit costs.

AGB-470 Farm Records, Accounts, Analysis 3.00

This course is a study of the use of the principles of farm management in developing a farm or farm business operation. An emphasis is placed on the importance of records as an essential management tool.

AGB-917 Experimental Course **1.00 - 4.00**

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGB-949 Special Topics **1.00 - 4.00**

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGC-216 Career Seminar **2.00**

This course is designed to help students explore and discover the many opportunities that are available in the profession of agriculture and related industries both nationally and internationally.

AGC-403 Sustainable Agriculture **2.00**

This course provides students the necessary information and knowledge to successfully convert their farming operation from conventional to organic farming, including transitioning farming methods that enhance their future organic farm productivity.

AGC-420 Issues in Agriculture **3.00**

This course provides students the opportunity to collect, discuss, interpret, and defend current economic, environmental and social issues that affect the production of agricultural commodities.

AGC-917 Experimental Course **1.00**

This pilot course is under the supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGC-936 Occupational Experience **3.00**

This course provides an "on-the-job" experience at a local business. The business will provide a training sponsor in cooperation with an instructor/coordinator from the college staff. Students will gain hands-on experience in observing and by demonstrating the knowledge and skills developed in the classroom. Prerequisite: AGB-420, AGB-437

AGC-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGH-284 Pesticide Application Certification 3.00

This course reviews the materials and testing procedures required to become a certified commercial pesticide applicator.

AGH-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGH-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGM-155 Farm Equipment Management 2.00

In this course, students will utilize operator's manuals to find information concerning the operation, lubrication and adjustment of farm machinery. In addition, students will properly adjust and operate the following equipment: 1) row-crop cultivator; 2) square baler; 3) disk/ harrow; and 4) field cultivator. The course will also address safe handling procedures and the use of herbicides, calibration of the field sprayer for proper operation, and adjusting the grain drill to plant soybeans and small seeds.

AGM-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGM-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGP-329 Introduction to GPS 3.00

This course is an introduction to the use of GPS and VRT as it impacts agricultural producers. Students will use field mapping software and GPS systems as part of the class.

AGP-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGS-113 Survey of the Animal Industry 3.00

This lecture and lab course introduces the student to a broad spectrum of animal science. Beef, swine, sheep, dairy, horse and poultry production are presented. Some exotic and nontraditional livestock are discussed.

AGS-226 Beef Cattle Science 3.00

This course will provide students an understanding of the retail beef industry. Students will learn concepts related to the important management decisions cow-calf, yearling-stocker producers must make. Also included are animal health concerns including prevention and treatment strategies. Proper ruminant nutrition balance rations and forage management will also be discussed.

AGS-228 Beef Cattle Science 5.00

This course deals with the retail beef industry. Topics include management decisions of cow-calf and yearling-stocker producers, major health problems and their prevention/treatment, ruminant nutrition balance rations and forage resource management.

AGS-242 Animal Health 3.00

This course provides information about the cause, nature, prevention, and treatment of common health problems of farm animals. Topics include identifying animal behavior and developing a herd health program.

AGS-270 Foods of Animal Origin 3.00

This course is a general agri-food science course that deals with world food needs and available food supplies, types of food and their nutritive value and use, and the methods used and challenges involved in food production, transportation, preservation/ processing, storage, distribution, marketing and consumption. The course covers foods of animal origin.

AGS-319 Animal Nutrition 3.00

This course is a comprehensive study of animal nutrition. Topics include digestive systems, feedstuffs, processing, nutrition values, ration formulation and practical application.

AGS-331 Animal Reproduction 3.00

This course is a combined lecture and lab course. It is presented with the agriculture student in mind. The first unit, Physiology, addresses cellular digestion, reproduction, genetics and ecology. The second unit, Applications, teaches the practical application of animal science. The third unit instructs students in the interpretation of performance data for judging and evaluating livestock.

AGS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGT-250 Food and Biosecurity Issues 1.00

This course focuses on threats to food system biosecurity. Students research and discuss contemporary issues regarding biosecurity, vulnerabilities of the food system from pre-harvest through post-processing, consumption and potential threats by class of agents.

AGT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGV-102 Animal Handling & Restraint 1.00

This course provides hands-on opportunities for students to practice restraint techniques that are needed in the veterinary field. The labs include concepts for blood collection, medicine administration, rope tying, and more. The lab projects involve both individual and team work. Prerequisite: AGV-121, AGV-156, AGV-176

AGV-109 Pharmacy Skills 2.00

This course reviews the basic concepts of animal anatomy and physiology in relation to medicine administration. Students are familiarized with veterinary drugs, their modes of administration and specific function in animal body systems. Prerequisite: AGV-121, AGV-156, AGV-176, Corequisite: AGV-157

AGV-121 Veterinary Medical Terminology 2.00

This course familiarizes students with the veterinary terminology that is used in practice. Students will learn laboratory, diagnostic and treatment terminology. Corequisite: AGV-156, AGV-176, AGV-102

AGV-156 Veterinary Reception and Administration Skills 2.00

This course introduces students to veterinary practices, facilities and administrative duties. The course integrates applied human relations, accounting and business procedures that are relevant to the veterinary profession. Corequisite: AGV-121, AGV-176

AGV-157 Animal Anatomy and Physiology 2.00

This course provides information regarding animal anatomic landmarks, terminology and the function of body systems. Comparisons of the structure and function of various animals will be conducted. Prerequisite: AGV-121, AGV-156, AGV-176, Corequisite: AGV-109

AGV-173 Veterinary Surgical Concepts 3.00

This course introduces selected phases of veterinary surgical nursing, application of sterile techniques, and surgical equipment. Topics include pre-anesthetic considerations, general anesthetic agents, anesthesia monitoring and diagnostic imaging techniques. Prerequisite: AGV-102, AGV-121, AGV-156, AGV-176, Corequisite: AGV-157, AGV-109, AGV-174

AGV-174 Clinical Studies 3.00

This course introduces the basic knowledge of identifying parasites, urine collection, examining blood samples, identification of animal pathogens, and chemical constituents of body fluids. Through the lecture and lab format, students use hands-on activities to integrate theory with application. Prerequisite: AGV-102, AGV-121, AGV-156, AGV-176, Corequisite: AGV-109, AGV-157, AGV-173

AGV-176 Animal Nursing (Small & Large) 3.00

This course introduces small and large animal care and management. Students study the history, characteristics, housing, equipment, handling, reproduction, diseases and ailments of small and large animals. Corequisite: AGV-121, AGV-156, AGV-102

AGV-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGV-932 Internship 4.00

This course gives the student on-the-job training in a field related to veterinary practice or animal care coordinated by the instructor and supervised by an industry professional. Prerequisites include all of the related course material through the second semester as suggested by the school catalog. Prerequisite: AGV-121, AGV-156, AGV-176

AGV-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ANT-105 Cultural Anthropology 3.00

This course is a cross-cultural study of the variety of human adaptations to physical, social and cultural environments, primarily in terms of subsistence, technology, social groupings, government, economic organization, religion and aesthetics.

ANT-917 Experimental Course: 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required. Prerequisite: Instructor permission required

ANT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required. Prerequisite: Instructor permission required

ART-101 Art Appreciation 3.00

This course explores the creative process emphasizing art as a visual form of communication. It presents useful criteria for evaluation and enjoyment of art through the development of visual vocabulary and knowledge of art processes, as well as art in a historical context.

ART-120 2-D Design 3.00

This combined lecture and lab course introduces the concepts of two-dimensional design and spatial orientation to original design creation. Topics included are pattern, texture, line, shape, value, mass and color theory.

ART-123 3-D Design 3.00

This is a combined lecture and lab course that studies the fundamentals of three-dimensional arts. It addresses problems based on space organization utilizing the elements of design and emphasizes application of design concepts to original design.

ART-133 Drawing 3.00

This course combines lecture and lab activities. As a foundation studio course, it introduces basic drawing principles such as line, shape, form, texture, value, space, perspective and composition, as well as serving as an introduction to medias including pencil, pen, charcoal, conte, chalk and other alternate media. It stresses perception, visual awareness, sensitivity, and critical thinking/judgment, and may include still life, landscape, portrait, live model and non-objective forms.

ART-134 Drawing II 3.00

This is a combined lecture and lab course. A foundations studio course, it continues basic drawing principles such as line, shape, form, texture, value, space, perspective and composition, as well as continuing to explore medias including pencil, pen, charcoal, conte, chalk and other alternate media. It stresses perception, visual awareness, sensitivity and critical thinking/judgment, and may include still life, landscape, portrait, live model and non-objective forms. Focus is on the student's preferential media, subject and content with an emphasis on the criteria of composition as determining a drawing's success, as opposed to visual perception, rendering or technique. Students will be expected to make "finished" works of art for presentation and to move beyond strictly studies or technical assignments. Prerequisite: ART-133

ART-143 Painting 3.00

This is a combined lecture and lab course. A foundation course in studio painting, it employs contemporary styles, techniques and materials in various media.

ART-144 Painting II 3.00

This is a combined lecture and lab course. It is a continuation of ART 143 with emphasis on material, composition and color. Prerequisite: ART-143

ART-184 Photography 3.00

This course combines lecture and lab activities which introduce students to black and white photography, its history and its growth as a fine art medium. Students develop the skills necessary for basic camera, studio and darkroom applications. No previous experience is required. A 35mm single-lens Reflex camera is required.

ART-185 Photography II **3.00**

This course is a continuation of Photography I. Students explore advanced camera and darkroom techniques while producing a portfolio of their photographic artwork for formal presentation. Photography as a medium of artistic expression and the critical thought processes occurring through the lens will be investigated. Exploration of alternative processes, studio portrait work, commercial photography, photo technology, and electronic imaging will also be examined. Students will prepare for photographic careers through preparing portfolios and understanding the job interviewing process. A 35mm single-lens Reflex camera is required. Prerequisite: ART-184

ART-186 Digital Photography **3.00**

This course introduces students to the digital camera. Students study and practice the varied artistic applications of digital images as enhanced with computer software. A digital camera is required.

ART-203 Art History I **3.00**

This course is a survey of the visual arts from prehistoric times through the Middle Ages with an emphasis on the relationship between art and social, economic, religious and geographical conditions. It discusses the historical context of contemporary forms of expression when relevant. This course is offered online via the Iowa Community College Online Consortium (ICCO).

ART-204 Art History II **3.00**

This course is a survey of the visual arts from the Renaissance to the present time with an emphasis on the relationship between art and social, economic, religious and technological development. It stresses the historical context of contemporary forms of expression and examines human concerns as they are revealed in art.

ART-370 Traditional & New Media 2-D Design **3.00**

This course introduces students to key concepts of two-dimensional design, design problem-solving, and spatial orientation such as texture, line, shape, value, mass, and color theory. The course bridges traditional and new media art with an emphasis on application using digital medium.

ART-371 Traditional & New Media Art 3-D Design **3.00**

This course covers the fundamentals of three-dimensional design and composition. Concepts covered include organizing principles of design, shape, value, color, and texture. It emphasizes application of traditional three-dimensional art concepts using digital medium. New media art design requires synthesizing artistic and technological skills. Prerequisite: CIS-381

ART-373 Digital Color, Lighting & Rendering **2.00**

This course is a study of color theory and use for digital application, digital lighting, and effective rendering. Color theory and digital lighting are particularly relevant to digital artists such as video game designers, cinematographers, and animators. Color and lighting are intrinsically powerful elements of design and understanding color, lighting, and rendering is vital for successful digital design, composition, and art.

ART-947 Practicum 1.00

This course is designed to allow the student to work, generally on campus, in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills from prior learning. This will be a coordinated effort between the student, faculty member(s), and the work supervisor involving evaluations and assessment. This course may be repeated for credit. Instructor consent is required.

ART-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ATR-120 Automation Systems/Robotics 3.00

This course introduces basic concepts of industrial process automation and programmed machine movement. Students investigate careers in robotics, automation and the evolution of industrial automated systems. Prerequisite: ELE-112, Corequisite: ATR-121

ATR-121 Automation Systems/ Robotics Lab 3.00

This course introduces the basic concepts of industrial process automation and programmed machine movement in a hands-on setting. Students program various robots to perform industry related tasks. Corequisite: ATR-120

ATR-276 Networking for Industry 3.00

This course gives the student experiences with common types of networks used in industrial locations. Students learn computer communication techniques and gain hands on experience with RS 232, RS 422 and Ethernet networks. Prerequisite: NET-162

ATR-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Prerequisite: Instructor permission required

ATR-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AUT-104 Introduction to Automotive Technology 3.00

This course provides basic instruction in shop skills including precision measuring, the use of hand tools, power tool use, fittings, fasteners, service manual use and related shop equipment. It covers the basics of electrical systems, drive train, fuel, brakes, heating, air conditioning, wheels and tires. It also emphasizes shop safety practices in each area of study.

AUT-115 Automotive Shop Safety 1.00

This course is designed to provide basic instruction in shop skills including precision measuring, the use of hand tools, power tool use, fittings, fasteners, service manual use, and related shop equipment. It emphasizes shop safety practices in each area of study.

AUT-164 Automotive Engine Repair 4.00

This is a combined lecture and lab course that provides information in areas of engine mechanical diagnosis and service. It includes lab experience in the overhaul of a variety of automotive engines, cylinder head service, and engine machining. It also covers overhead cam and multiple valve technology.

Prerequisite: AUT-115

AUT-205 Automotive Automatic Transmissions and Transaxles 5.00

This is a combined lecture and lab course that focuses on the operation; diagnosis, service and overhaul of rear wheel drive automatic transmissions. It includes both mock-up and live repair work in a laboratory setting and covers electronically controlled transmissions and all-wheel drive options. Prerequisite: AUT-115

AUT-304 Automotive Manual Drive Train and Axles 4.00

This is a combined lecture and lab course that focuses on the operation, repair, and service of manual drive train systems. This course covers drive shafts, FWD axle and joints, manual transmissions; clutches, rear drive axle assemblies, and transfer cases. Prerequisite: AUT-115

AUT-404 Automotive Suspension and Steering 4.00

This is a combined lecture and lab course that studies the operation and service of today's suspension systems. It covers suspension service and alignment techniques and includes training on a-frame and McPherson suspension repair, rack and pinion steering, front and rear alignment, four-wheel alignment,

electronic alignment systems, wheel balancing, and electronic leveling control systems. Prerequisite: AUT-115

AUT-503 Automotive Brake Systems 3.00

This is a combined lecture and lab course that provides training in the operation and service of today's brake systems. It emphasizes repair and service of drum and disk brake systems, and electronic antilock systems. Prerequisite: AUT-115

AUT-615 Automotive Electricity/Electronics 4.00

This course covers theory, diagnosis and service practices related to electronic systems found on today's automobiles. The basics of electricity, meter use and circuit analysis will be extensively covered. Special emphasis is made in the areas of schematics use, electrical system diagnosis, and circuit theory. Semiconductor use and computer operation will also be covered. Prerequisite: AUT-115

AUT-633 Automotive Electrical Systems 4.00

This course introduces students to electrical theory, diagnosis, and service practices related to the electrical systems found on today's automobiles. There is an emphasis on battery starting and charging systems, lighting systems, and hybrid vehicle electrical systems. Practical applications of schematics and electrical system diagnosis using circuit theory are discussed. Prerequisite: AUT-615

AUT-671 Automotive Body Computer Systems 3.00

This course introduces students to the functions of automotive body computer systems, including theft deterrent/security, electronic instrument displays, air bags, keyless entry and navigation/communication. Diagnosis and repair of these key electrical systems are emphasized along with safety considerations. Prerequisite: AUT-633

AUT-703 Automotive Heating and Air Conditioning 3.00

This is a combined lecture and lab course that covers the theory, operation, and service of automotive heating and air conditioning systems. It presents component repair, charging, and leak service and emphasizes the diagnosis of electronic climate control systems and safe recovery of refrigerant compounds. Prerequisite: AUT-115

AUT-807 Automotive Engine Performance 5.00

This course introduces students to the operation, diagnosis, and repair of tune-up and drivability related systems. Students explore the operation of fuel delivery systems, ignition and timing control, emissions systems, and comprehensive engine testing. Emphasis is placed on advanced tune-up techniques and diagnostics. Prerequisite: AUT-633, AUT-671

AUT-838 Automotive Advanced Fuel and Ignition Systems 5.00

This course allows students to discover various vehicle computer control systems and their related components. Students concentrate individually on each domestic manufacturer's system including system operation and factory diagnostic methods. Emphasis is placed on computerized electronic fuel injection systems and computer-controlled ignition systems Prerequisite: AUT-633, Corequisite: AUT-807

AUT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AUT-947 Practicum 4.00

This course provides on the job experience and practical application of the competencies studied in the Auto Technology course work. It involves a coordinated effort between the student, Western Iowa Tech Community College faculty members, and the work supervisor in the business for these experimental activities. Students are required to complete a minimum of 256 hours at an automotive business. Permission of the instructor is required. Prerequisite: Completion of a minimum of 29 hours of program requirement

AUT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BCA-051 Fundamentals of Computer Operations 2.00

This is a foundations course introducing students to a computer and its applications through a hands-on approach. Students learn basic skills in keyboarding, computer hardware, word processing, spreadsheets, e-mail, and internet usage. This course does not substitute for CSC 110 or BCA 206. Credit for this class does not apply to graduation requirements.

BCA-115 Internet Basics 1.00

This course provides instruction in browsing the World Wide Web, doing research on the Internet using search engines and search directories, setting up e-mail accounts, using an e-mail client, subscribing to newsgroups, identification of file types used on the Internet and downloading files from the Internet. It also provides an overview of the development of the Internet.

BCA-129 Basic Word Processing 2.00

This course addresses basic and intermediate levels of word processing using Microsoft Word. Skills introduced include using and manipulating Windows, entering and editing text, formatting paragraphs and text, using the spelling checker and thesaurus, selecting printers and printing documents, and applying document formatting options.

BCA-130 Advanced Word Processing **2.00**

This course covers the advanced features of Microsoft Word. Skills introduced include using mail merge features; sorting text and data records; creating macros; document notations; using basic desktop publishing features; and creating online forms. Prerequisite: BCA-129 or ADM-123

BCA-147 Basic Spreadsheets **2.00**

This course is designed to acquaint the student with the basic concepts of an electronic spreadsheet program. Hands-on practice in designing, building, and editing spreadsheets will develop the basic skills necessary to construct spreadsheets for home and business use.

BCA-148 Advanced Spreadsheets **2.00**

This course acquaints students with additional features of the Excel spreadsheet program. Topics include templates, macros, data validation, importing external data, pivot charts, and pivot tables. Prerequisite: BCA-147

BCA-165 Basic Databases **2.00**

This course teaches the fundamentals of database design and database creation. Students learn to create databases, query databases, maintain databases using design and update features, create custom reports, forms and combo boxes and create and use a data access page that allows users to utilize an Access database using the Internet.

BCA-175 Basic Presentation Software **2.00**

This course covers the development of presentation visuals using presentation software on a computer. Included in the course are how to plan and organize presentations and develop materials such as slides, black and white handouts and overheads. Students learn to integrate materials from several software sources, purchased graphics and art, and scanned materials. Preparing presentations for the Web is also covered.

BCA-206 Applied Computer Concepts **3.00**

This is an introductory course in basic electronic information processing. The emphasis is on computer literacy designed to give students a general understanding of computer software and hardware. Students gain hands-on experience with an operating system and software applications. Students are exposed to basic computer terminology, file management, email usage, digital

devices, Internet, social networking, and security and privacy issues. This course may not transfer to other institutions. It is advisable to be able to key a minimum of 20 wpm in order to be successful in this course.

BCA-221 Integrated Computer Business Applications 3.00

This course allows students to utilize their Microsoft Office knowledge and skills. Students receive instruction on specific Office application integration with emphasis both on individual and workgroup-oriented projects. Prerequisite: CSC-110 , or BCA-129 , BCA-147 , BCA-175 , and BCA-165

BCA-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BCA-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BIO-105 Introductory Biology 4.00

This is a combined lecture and lab course that is a biological concepts survey for non-science majors. Topics covered include biochemistry, molecular and cellular biology, genetics, evolution, plant and animal classification, structure and function and ecology.

BIO-116 General Biology 1B 4.00

This is a combined lecture and lab course that provides a foundation of the science of living things including biochemistry, cytology, genetics and evolution.

BIO-117 General Biology IIB 4.00

This is a combined lecture and lab course that is the continuation of General Biology IB. Topics covered include classification, interrelationships between tissues, organs, and systems, immunity, sexual reproduction, embryology, animal behavior, and ecological relationships. Prerequisite: BIO-116

BIO-125 Plant Biology 4.00

This course is a semester long survey of Plant Biology. The course will include topics on plant cells, tissues, roots, stems, leaves, flowers, fruits, seeds, metabolism, growth, development, genetics, reproduction, evolution, ecology, and will include a survey of bryophytes, seedless vascular plants, gymnosperms and angiosperms and their impact on civilization.

BIO-151 Nutrition 3.00

This course presents the relationship between proper nutrition and good health. Topics covered include digestion, absorption, and metabolism of carbohydrates, lipids and proteins. Also included are vitamins, minerals, physical activity, maintenance of a healthy body weight, nutritional needs throughout the entire life cycle, and evaluation of nutritional claims. Prerequisite: Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better and 1 semester of High School Biology with a B- or better 3) Completion with a C- or better in a transfer level Biology (BIO-105 or higher) or Chemistry (CHM-122 or higher) 4) Instructor Permission to enroll in the course

BIO-163 Essentials of Anatomy and Physiology 4.00

This is a terminal one-semester lecture and lab course covering the structure and function of the human organ systems and their organs. It also includes an introduction to medical terminology, homeostasis, basic cell and tissue structure and function. Students are required to identify specific organs including the major bones, the major muscles and the major blood vessels.

BIO-169 Human Anatomy and Physiology IA w/lab 4.00

This is a combined lecture and lab course that explores the relationship between structure, function and homeostasis in the human body. This course covers the skeletal, muscular, integumentary, and nervous systems, as well as cytology and histology. Prerequisite: Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better and 1 semester of High School Biology with a B- or better 3) Completion with a C- or better in a transfer level Biology (BIO-105 or higher) or Chemistry (CHM-122 or higher) 4) Instructor Permission to enroll in the course

BIO-174 Human Anatomy and Physiology IIA w/lab 4.00

This is a combined lecture and lab course that is a continuation of Anatomy and Physiology IA. Topics studied include the structure and function of the cardiovascular, lymphatic, endocrine, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIO-169

BIO-186 Microbiology 4.00

This course combines lecture and lab activities for the study of microorganisms with emphasis on bacteria and viruses. Topics covered include morphology, physiology, genetics, culturing techniques, identification, control, disease and disease resistance of microbes. Prerequisite: BIO-116 or BIO-169

BIO-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BIO-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BIR-101 The BIR Industry 3.00

This lecture course presents an overview of the band instrument repair industry. Types of shop environments, manufacturers of instruments, and suppliers of tools and materials will be emphasized. Corequisite: BIR-140, BIR-150

BIR-105 Repair Shop Safety 1.00

This lecture course covers all aspects of repair shop safety. Specific procedures for the WITCC Band Instrument Repair program are emphasized, along with safety practices for equipment used in the industry. Corequisite: BIR-140, BIR-150

BIR-110 Instrument Case Repair 1.00

This lecture course covers repairs to instrument cases. Replacement of latches, handles, hinges, and interior components are emphasized. Corequisite: BIR-141, BIR-151

BIR-126 Woodwind Machine Operations 3.00

This combined lecture and lab course covers lathe operations for woodwind instruments. Students learn tenon replacement, tone hole replacement, socket grafting and tenon capping. Prerequisite: BIR-141, Corequisite: BIR-240

BIR-135 Small Parts Machining 3.00

This combined lecture and lab course is an introduction to machine lathe operation, focusing on the fabrication of small component parts and tools for instrument repair. Corequisite: BIR-151, BIR-141

BIR-140 Woodwind Repair I 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for clarinets and flutes. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms, and spring installation are emphasized. Corequisite: BIR-150

BIR-141 Woodwind Repair II 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for clarinets and flutes. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms, and spring installation are emphasized. Prerequisite: BIR-140, BIR-150, Corequisite: BIR-151

BIR-150 Brasswind Repair I 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for cornets and trumpets. Fundamental skills including cleaning techniques, soldering, piston valve repair and basic dent repair techniques are emphasized. Corequisite: BIR-140

BIR-151 Brasswind Repair II 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for trombones. Fundamental skills including cleaning techniques, handslide alignment, soldering, and basic dent repair techniques are emphasized. Prerequisite: BIR-140, BIR-150, Corequisite: BIR-141

BIR-210 Percussion Instrument Repair 1.00

This lecture course covers repairs to percussion instruments. Construction materials, mechanical function, and replacement of component parts are emphasized. Corequisite: BIR-240, BIR-250

BIR-215 Shop Management Practices 3.00

This capstone course prepares students for employment in the field of band instrument repair. Topics include customer recruiting and retention, customer relations, repair pricing and estimating, time management, inventories and suppliers, employment strategies, retail music business practices, and shop set-up and design.

BIR-225 Orchestral String Instrument Repair 2.00

This course covers fundamental playing techniques, characteristics, physical properties, manufacturing methods and basic repairs on orchestral string instruments. The course covers techniques for replacing strings, bridges, sound posts and tuning pegs, as well as repairing minor structural damage. Corequisite: BIR-241, BIR-151

BIR-240 Woodwind Repair III 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for piccolos, harmony clarinets and oboes. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms, and spring installation are emphasized. Prerequisite: BIR-141, BIR-151, Corequisite: BIR-250

BIR-241 Woodwind Repair IV 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for bassoons, along with a comprehensive review of woodwind instrument repair. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms and diagnostic procedures are emphasized. Prerequisite: BIR-240, BIR-250, Corequisite: BIR-251

BIR-250 Brasswind Repair III 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for horns and rotary valves. Fundamental skills including cleaning techniques, rotary valve alignment, leadpipe replacement, and dent repair techniques are emphasized. Prerequisite: BIR-141, BIR-151, Corequisite: BIR-240

BIR-251 Brasswind Repair IV 4.00

This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for euphoniums, tubas, and sousaphones, as well as a comprehensive review of brass instrument repair. Fundamental skills including cleaning techniques, valve alignment, soldering and dent repair techniques are emphasized. Prerequisite: BIR-240, BIR-250, Corequisite: BIR-241

BIR-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BIR-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BMA-175 Basic Plumbing 2.00

This course is an introduction to a career in plumbing across a variety of residential and commercial settings. Students study safety procedures and tools as well as perform operations with both residential and commercial plumbing systems.

BMA-177 Industrial Plumbing and Pipefitting 3.00

This course in fundamental plumbing and pipefitting covers topics including the properties of torque, the use of torque and the application of torque; the development and use of piping schematics; elementary pipe layout and joint

construction with various materials; the purpose, use, construction and operation of valves and process control equipment used in manufacturing. Prerequisite: BMA-175 , CON-112 , and PLU-170

BPT-114 Instrumentation I 2.00

This course is designed to provide the student with an introduction to basic process and continuous process control. This course teaches two of the most common types of process control systems, flow and liquid level, and the basic concepts on which other systems are based. Students will learn to calibrate, adjust, install, operate, and connect process control systems in industrial applications thus broadening their employment opportunities. Topics include, but are not limited to, feedback, modes, characteristics, variables, instrumentation and connections.

BPT-115 Instrumentation II 2.00

This course is a continuation of Instrumentation I and covers one of the most common types of process control systems, temperature control. Topics include process measurement, calibration and test equipment. Prerequisite: BPT-114

BPT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BPT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BUS-102 Introduction to Business 3.00

This course provides a broad overview of business including internal and external functions. Topics include economics, marketing, entrepreneurship, and management as well as related domestic and international business issues.

BUS-124 Business Innovation 3.00

This course is designed to help students get in touch with the innovative business mindset required for success in the 21st century. Students learn to be contributors, catalysts and thinkers within the innovation process. They develop skills as individuals and the team skills needed to collaborate, using available creative resources to leverage ideas and concepts throughout the innovation process.

BUS-130 Introduction to Entrepreneurship 3.00

This course covers small business management issues via case studies. It emphasizes insights into the organization, financial decision making, and marketing practices of small businesses. Familiarity with basic accounting principles, concepts applicable to the operation of a service oriented or retailing sole proprietorship, and the internal and external functions of a business will support work in this course.

BUS-133 Entrepreneurial Studies 3.00

This course is an intensive application of concepts and ideas through the writing of a business plan. Prerequisite: ACC-131, MKT-110

BUS-150 E-Commerce 3.00

This course is designed to familiarize individuals with current and emerging electronic commerce technologies using the Internet. Some of the topics include Internet technology for business advantage, managing electronic commerce funds transfer, reinventing the future of business through electronic commerce, business opportunities in electronic commerce, electronic commerce web site design, social, political, and ethical issues associated with electronic commerce, and business plans for technology ventures.

BUS-185 Business Law I 3.00

This course is an introduction to laws and court procedures relating to business. It emphasizes the ethical, constitutional and regulatory aspects of business. The course concludes with an in-depth study of the laws governing the formation and enforcement of contracts.

BUS-186 Business Law II 3.00

This course emphasizes the Uniform Commercial Code and its importance to business enterprises and covers property, agency and business organizations. It is a continuation of Business Law I. Prerequisite: BUS-185

BUS-197 Leadership Development 3.00

This course explores leadership styles effective in the workplace and helps participants gain insight into their natural leadership style and implications of that style on work and group performance.

BUS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BUS-930 Career Readiness 1.00

This course provides students with career development and foundational skill attainment in the core areas of Reading, Mathematics and Locating Information, as well as other soft skills. Students will prepare for and take the National Career Readiness Exam, culminating in the National Career Readiness Certificate. This nationally recognized certificate verifies to employers that an individual has essential core employability skills.

BUS-934 Capstone Experience 1.00

This course promotes integration and connections between general education and the academic major. It further provides meaningful connections between the program of study content and work and career experiences. Students complete a major project or set of multiple projects with minimal instructor support. Students will demonstrate their knowledge and skills in a variety of formats.

BUS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CAD-267 Two-Dimensional (2-D) I 3.00

This course introduces students to standard industry practices for technical and industrial illustration. Emphasis is placed on understanding how edges and surfaces are represented using orthographic projection. Students will use computers to create technical drawings of mechanical components. Prerequisite: DRF-113, DRF-121

CAD-269 CAD Two-Dimensional (2-D) II 3.00

This course introduces students to advanced standard industry practices for technical and industrial illustration. Emphasis is placed on greater understanding of how edges and surfaces are represented using orthographic projection. Students use computers and the most up-to-date CAD software to create advanced 2D technical drawings. Prerequisite: CAD-267

CAD-277 3-D Dimensional (3-D) Modeling I 3.00

This course teaches parametric solid model CAD basics. Three-dimensional parametric concepts with design intent and solid CAD models will be built and edited. This course builds on previous basic drafting skills and focuses on using parametric solid modeling design software to develop technical drawings. Topics include patterns of features, editing, adding dimensions and creating simple assemblies Prerequisite: CAD-269

CAD-279 CAD 3-Dimensional (3-D) Modeling II 3.00

This course is a continuation of CAD 3-Dimensional Modeling I. Advance parametric solid model CAD features are taught. Parametric concepts with design intent are emphasized and solid CAD models are built and edited. This course builds on previous basic drafting skills and focus on using parametric solid modeling design software to develop complete working drawings with assemblies and bill of materials. Prerequisite: CAD-277

CAD-285 Computer Aided Drafting for Industry 4.00

This course builds on previous drafting studies and focuses on common industry processes of manufacturing. The process of welding and the creation of weldments is studied along with the principles and creation of sheet metal developments. The intersection of lines, planes and solids is also covered. Prerequisite: CAD-279

CAD-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CAD-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required

CHM-122 Introduction to General Chemistry 4.00

This is a combined lecture and lab course that covers the basic concepts of inorganic chemistry: atomic structure, compounds and bonds, chemical equations and stoichiometry, states of matter, solutions, acids and bases, redox and nuclear chemistry. Prerequisite: MAT-102 or appropriate CPT score.

CHM-132 Introduction to Organic and Biochemistry 4.00

This is a combined lecture and lab course that covers the basic elements of organic chemistry and biochemistry: alkanes and their derivatives, carbohydrates, lipids, proteins, enzymes, the chemistry of cell metabolism and the chemistry of heredity. Prerequisite: CHM-122 or CHM-166

CHM-166 General Chemistry I 5.00

This is a combined lecture and lab course that covers the principles of atomic and molecular structure, chemical bonding, periodicity, nomenclature, equations and stoichiometry, physical states of matter and energy transfer processes and nuclear chemistry. It is strongly recommended...Pre-requisites: High School Algebra II or MAT 121 College Algebra; and High School Chemistry or CHM 122

Introduction to General Chemistry. Prerequisite: High School Algebra II or MAT 121 College Algebra; and High School Chemistry or CHM 122 Introduction to General Chemistry.

CHM-176 General Chemistry II **5.00**

This combined lecture and lab course is a continuation of Chemistry I. Topics includes solutions and colligative properties, acids and bases, equilibrium, thermodynamics, kinetics, redox reactions and electrochemistry, nuclear chemistry and systematic descriptive chemistry of metals and nonmetals. Prerequisite: CHM-166, MAT-121

CHM-261 Organic Chemistry I **4.00**

This course covers the theory and practice of organic chemistry with an emphasis on the chemistry of functional groups. Topics include nomenclature, stereoisomerism, chemical bonding, reaction mechanisms, the characterization of hydrocarbons, alkyl halides and alcohols. Laboratory work stresses development of appropriate organic chemistry separation, isolation and synthetic techniques. Prerequisite: CHM-176

CHM-271 Organic Chemistry II **4.00**

This is a combined lecture and lab course that is a continuation of Organic Chemistry I. Topics covered include ethers, aldehydes, ketones, carboxylic acids and their derivatives, amines and biologically important fats, proteins, and carbohydrates. The course emphasizes qualitative organic analyses and spectroscopic methods. Prerequisite: CHM-261

CHM-917 Experimental Course **1.00 - 4.00**

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CHM-949 Special Topics **1.00 - 4.00**

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CIN-104 Media Production and Equipment **3.00**

This course introduces the student to the basics of media production and the equipment used to perform media production for television, multimedia and the web. Basic operation of ENG, EFP, DSLR as well as non-traditional visual gathering cameras is covered. The basics of shot composition and exposure are introduced.

Various types of camera support are explained and demonstrated. File management is an integral part of this course. Corequisite: ELE-101

CIN-106 Introduction to Editing Software 2.00

This introductory course will explain the background of the editing process. Various editing software packages will be demonstrated and through hands-on projects the students will develop editing skills and an understanding of industry standard best practices in relation to editing. Corequisite: CIN-117

CIN-116 Management and Operations 3.00

This course educates students in the basics of the day to day management and operations of broadcast and cable television stations and media production companies. Freelance and "one man band" style operations are covered as well.

CIN-117 Introduction to Motion Graphics 2.00

This course introduces the student to design and execution of motion graphics using industry standard software. Also covered are file formats and conversion, production workflow, and broadcast standards for graphics. Corequisite: CIN-106

CIN-118 Technical Production in Media 3.00

This course covers the different types of lighting for media production. Types of instruments, color temperature, lighting modification and styles are discussed. Lighting for location, stage and studio are part of this course. Automated lighting methods such as DMX are also discussed. Prerequisite: CIN-104

CIN-125 Integrated Motion Graphics and Video 2.00

This course integrates motion graphics with both live and pre-recorded video elements for broadcast, multimedia and web productions. Maintaining quality and high standards are stressed throughout. Prerequisite: CIN-117

CIN-126 Video Field Production 3.00

This course concentrates on the skills to acquire video in the field. Proper shot composition; lighting and audio acquisition are stressed. Students are also instructed in special considerations while working in the field. Prerequisite: CIN-104, CIN-106

CIN-127 Live Video Production 3.00

This course investigates studio production in varied program types such as news, events and dramas. Job skills and responsibilities of the director, technical director, floor director, camera operators and audio engineers are demonstrated. Other skills such as timing, intercom and teleprompter operation are discussed. Prerequisite: CIN-126, CIN-118

CIN-135 Advanced Motion Graphics and Video 3.00

This course provides instruction in advanced techniques in the integration and creation of high quality motion graphics using industry standard tools and software. Prerequisite: CIN-125

CIN-145 Marketing and Advertising for Media 3.00

This course covers the advertising aspects of media production. The operations of advertising agencies, radio, TV & Cable sales operations are central to this course. The importance of ratings is also covered, as well as special media considerations of the US Election cycles.

CIN-149 Internship 1.00 - 4.00

This course provides on-the-job experience on campus or in an industry setting giving students experience and practical application of the competencies learned in the Independent Film program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Students must have successfully completed the required program courses for the first and second semesters. Instructor permission required.

CIN-161 Video Practicum I 1.00

This course will allow students to apply learned skills by producing video projects under faculty supervision. Prerequisite: CIN-104

CIN-162 Video Practicum II 2.00

This course will allow students to apply learned skills by producing more challenging video projects with less faculty supervision while maintaining high quality outcomes. Prerequisite: CIN-161

CIN-163 Video Practicum III 2.00

This course will enable students to apply learned skills by producing advanced projects for clients on and off campus with minimal supervision of faculty as a capstone to their program experience. Students will also assemble a portfolio of work performed in the program as both an aide to pursuing work in their chosen field and to show their progress throughout the program. Prerequisite: CIN-162

CIN-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

CIN-932 Internship 1.00 - 4.00

This course provides on-the-job experience on campus or in the industry, giving the student experience and practical application of the competencies learned in the degree program. The internship is coordinated by the college instructor and

supervised by an industry professional at the work site. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor. Students meet once a week to discuss their experiences and ongoing progress with their fellow class members, and to measure progress with the instructor.

CIN-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CIS-163 Animation Project 2.00

This course is the culminating course for the Dynamic & Visual Effects Animation certificate or Character Animation certificate. Students review and demonstrate understanding of core animation concepts. Students finish the course with a portfolio quality final animation asset. Prerequisite: CIS-378 or CIS-377

CIS-171 Java 3.00

This is a comprehensive JAVA programming course that introduces students to object-oriented programming concepts along with the JAVA syntax to implement them. JAVA applications are introduced prior to applets, so the student has more thorough understanding of the concepts used in object-oriented programming.

CIS-175 Java II 3.00

This course is the second of two comprehensive Java programming courses. Java II introduces students to advanced object-oriented programming concepts along with the Java syntax to implement them. Java graphical user interface (GUI) applications are introduced, providing the student a more thorough understanding of the concepts used in object-oriented programming. Topics emphasized are graphical user interfaces, wrapper classes, exception handling techniques, applets, recursion, polymorphism, inheritance and working with databases in Java. Prerequisite: CIS-171

CIS-215 Server Side Web Programming 3.00

This combined lecture and lab course will introduce students to a server-side scripting language to create form handlers and mailer applications, build basic document management systems and create server-based support pages for custom web applications. Students will also learn about methods for persisting client information and error handling.

CIS-333 Data Base and SQL 4.00

This is a combined lecture and lab course that provides instruction and experience in programming with relational database access. It references and/or uses data base software.

CIS-345 Data Base Design 2.00

This course introduces students to the concepts associated with relational database design. Students will use data modeling to produce an efficient and maintainable database design. Students will also become familiar with entity relationship diagrams and data normalization.

CIS-373 Introduction to Game Audio 3.00

This course is an overview of video game audio development including interactive sound effects, sound manipulation, music, and dialog. Students work with audio production tools and are introduced to the game audio pipeline. Sound libraries, audio design document, file management, industry mixing techniques, sequencing, studio and field sound recording, and other key elements of the professional game audio development cycle are also covered.

CIS-374 Sound Design for Games 3.00

This course introduces game audio production and implementation including relevant roles within the game industry and typical production schedules. Students develop audio for a game and continue their exploration of sound design via sound effect creation and sonic manipulation for interactive environments as well as sound editing, sound bytes, and voice editing. Prerequisite: CIS-373

CIS-375 Music and Composition for Games 3.00

This course introduces the fundamentals of developing music for interactive video games. Students learn basic compositional techniques, digital audio editing and mixing, and sequencing music for a game. The course also covers game audio production work flow, digital music development issues, sound engines, middleware, technical constraints, and the studio techniques used to create interactive game music. Students learn how to "tell a story" using digital music to build an immersive gaming experience. Prerequisite: CIS-373, MUS-102

CIS-376 Anatomy for Digital Artists 2.00

This course introduces core aspects of human and animal anatomy for digital artists. It covers the essential aspects of anatomy required to be a successful artist in video games, visual effects, animation, and other CG fields.

CIS-377 Character Animation 3.00

This course is a key component of video game, simulation, and other CG animation development. Students acquire an understanding of skinning, rigging, kinematics, blend shapes, walk cycles, and other core character animation

This course addresses the process of game development: prototyping, preproduction, production, testing, release, and post mortem. Students will study design cycle, waterfall method, and SDP method. They will also define game design documents and analyze games.

CIS-388 Creative Writing for Games 3.00

This course presents creative writing techniques used to aid in the development of games. Key elements include brainstorming techniques, storyboarding, principles of storytelling, plot, conflict, character development, camera angles, and camera moves.

CIS-389 Level Design I 3.00

This course introduces the art of game and level design. A combination of theory and hands-on application is used to teach the skills needed to build levels for many different types of games. The layout, look, and feel of levels are the main focus of this course. Prerequisite: CIS-387

CIS-390 Level Design II 3.00

This course applies the theory of level lay out from Level Design I and adds the scripting aspects in order to create puzzles, interactive objects, and triggers. Students will debug the scripts and address level design issues. By the end of the course students will create a playable level. Prerequisite: CIS-389, CIS-392

CIS-391 Animation for Games 2.00

This course introduces students to 3D computer animation, basic animation principles, and application of animation concepts by creating animation scenes. The focus of this course is utilizing key animation concepts to design, create, document, and debug a basic animation.

CIS-392 Interface Design for Games 3.00

This course provides an overview of the user interfaces (UI) - the good, the bad and the ugly. Students will explore what makes a good interface, what makes a bad interface, and techniques on how to create user interfaces, the look, and interactions. Topics include cross platform interface, platform differences, transparency, and standard UI practices. Prerequisite: CIS-387, CIS-383

CIS-393 Introduction to 3-D Gaming Art 3.00

This course introduces industry standard 3-D software development tools, including Maya, 3ds Max and ZBrush. 3-D software plays a significant role in game development, movie animation and graphics and related fields. Understanding how such software is used and how to use it is vital for a career involving computer graphics. Prerequisite: ART-371

CIS-394 Introduction to Game Programming 3.00

This course provides information regarding the many types of game engines, their uses, and the difference between commercial and open source game engines. Game development is also addressed.

CIS-395 Game Engines 3.00

This course provides information regarding the many types of game engines, their uses, and the difference between commercial and open source game engines. Game development is also addressed. Prerequisite: CIS-387

CIS-396 Game Development Team 3.00

This course illustrates the various design teams and their roles during the game development process. Students will experience key industry roles, including game designer, artist, programmer, tester and project manager. This course is offered concurrently with CIS 398 Game Final Submission in order for students to collaborate with their teams as they design and build a prototype video game.

CIS-397 Physics for Game Design 4.00

This course explores the relevance and application of physics in video games. Students examine the basic concepts of physics and how it relates to video games and physics engines. Prerequisite: CIS-387, CIS-395

CIS-398 Gaming Final Submission 2.00

This course is the culmination of Video Game Design program coursework. Students are assigned to teams to design and build a small game based on an instructor-approved topic. Each team will also present the design document and the final submission. This course is offered concurrently with CIS 396 Game Development Team in order for students to collaborate with their teams on the project. Each student is responsible for being the lead designer for their final game submission project. Corequisite: CIS-396

CIS-399 Video Game Portfolio 2.00

This course demonstrates how to create, prepare, and showcase portfolio quality assets in order to gain employment in the video game and related industries. Students will create portfolio quality assets for presentation to prospective employers.

CIS-606 Visual BASIC.NET I 3.00

This course is a combined lecture and lab course that introduces Windows programming using Microsoft's .NET framework. Students will write introductory level programs involving variables, assignment, input and output using graphical user interface (GUI), calculations, repetition and selection between alternatives using the .NET environment.

CIS-607 Visual BASIC.NETII 3.00

This course is a continuation of Visual Basic.NET I. In this course, students learn more about advanced database programming, reporting, web programming, multilayer applications, user controls and developing applications for mobile devices using Visual Basic. NET. They also build on the concepts of problem solving and design techniques of object oriented programming. Prerequisite: CIS-606

CIS-721 Engine Scripting Basics 4.00

This course introduces students to the fundamentals of game programming. Concepts covered include types and components of the computer languages C++, C#, and JavaScript as they relate to video games. The course emphasizes application of planning, reference, good communication, and proper coding technique.

CIS-731 Advanced Engine Scripting 4.00

This course is a continuation of CIS 721: Engine Scripting Basics. Students learn advanced scripting techniques including data types, functions, variables, loops, triggers, Heads Up Display (HUD), Graphic User Interface (GUI), and Artificial Intelligence (AI). Students will expand their knowledge in the computer languages of C++ and C# which are used in the Unreal and Unity game engines. Prerequisite: CIS-721

CIS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CIS-932 Internship 1.00 - 4.00

This course provides on-the-job Information Technology training in an organization that will give the student intern an opportunity to utilize the skills and education acquired in the computer programming curriculum. The supervision of job tasks is by an industry professional and coordinated by the college instructor.

Prerequisites: Successful completion of required program courses for first, second and third semesters or instructor's consent.

CIS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CLS-201 Cultural Perspectives 1.00

This course provides an overview of the customs, language and arts of a specified culture. The unique structure of this course offers students the opportunity not only to study the culture in a classroom setting, but students will experience it first-hand through a travel component. Students will incur significant additional costs for travel. These costs will be detailed by the instructor no later than the first day of class. This course may be repeated for credit.

CLS-202 Cultural Perspectives 2.00

This course combines the overview of the customs, language and arts of a specified culture with an in-depth study of one aspect of the culture being explored. The unique structure of this course offers students the opportunity not only to study the culture and particular aspect in a classroom setting, but students will experience it first-hand through a travel component. Students will incur significant additional costs for travel. These costs will be detailed by the instructor no later than the first day of class. This course may be repeated for credit.

CLS-203 Cultural Perspectives 3.00

This course provides a culminating experience for students with an overview, in-depth study and capstone project of a specified culture. The unique structure of this course offers students the opportunity not only to study the customs, language and arts of the culture in a classroom setting, but students will experience it first-hand through a travel component. Students will incur significant additional costs for travel. These costs will be detailed by the instructor no later than the first day of class. This course may be repeated for credit.

CLS-212 Diversity 3.00

This course utilizes an interdisciplinary and intersectional approach to studying gender, race, class, sexuality and other issues of diversity. The curriculum highlights the duality of oppression and privilege and the ways in which race, gender, class and sexuality shape daily life. Special focus is on learning how to demonstrate course concepts as social action. Social justice is practiced as students become educated in these concepts of diversity and engage in diversity conscious social action.

CLS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CLS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course

already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

COM-090 Academic Literacy 3.00

This course provides intensive instruction in critical thinking, reading, and writing as will be required for ENG 105 and other college-level courses. Using theme-based readings from a variety of genres, coursework will emphasize independent reading of complex academic texts, critical response to ideas and information in academic texts, and writing essays that integrate ideas and information from academic texts. This is a pass/no pass course and will not affect the student's GPA. May be repeated.

COM-723 Workplace Communications 3.00

This course is a study of the principles and processes of written and oral communication as applied to occupational and personal use through practical reading, writing and speaking assignments. It emphasizes technical report writing, including preparation, organization, audience and the effective use of format, supplements and visuals.

COM-753 Technical Communications 3.00

This course covers written and oral communication as it applies to various occupational areas. It emphasizes technical report writing, including preparation, organization, audience and the effective use of format, supplements and visuals.

COM-917 Experimental Course: 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required. Prerequisite: Instructor permission required

COM-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Prerequisite: Instructor permission required

CON-112 Blueprint Reading and Estimating 3.00

This course examines construction related drawings and the language of construction. Students are shown how to gather and use information from prints and drawings to estimate quantities of materials and perform construction work processes.

CON-132 Footings and Foundations 3.00

This course emphasizes site layout, footings, wall foundations, and flat concrete work. Topics include estimating and reading blueprints as well as hands-on experience in footings and poured walls. A field project to provide practical experience is included. Prerequisite: CON-136

CON-136 Introduction to Construction Shop 1.00

This course is a prerequisite to all credit carpentry classes and is a lecture course that serves as an introduction into Carpentry or Construction classes. Content covers personal safety, tool safety, tool maintenance, and hand and power tool identification and proper use.

CON-204 Basic Framing Techniques 4.00

This course offers a background in woods, fasteners and materials, and introduces blueprint reading. Beginning rafter construction and roof framing and finishing is also covered. It is a combined lecture and lab course and includes hands-on experience in the framing of exterior and interior walls, doors and window openings, and interior walls. Prerequisite: CON-136

CON-209 Introduction to Drywall 1.00

This course is a combined lecture and lab course that introduces the student to the basics of hanging and taping drywall and its uses in residential construction. It also provides students the necessary knowledge and skills to insulate a structure. Prerequisite: CON-136

CON-216 Advanced Framing and Roofing 6.00

This course is a combined lecture and lab course that further explores framing of exterior and interior walls, and door and window openings. It provides framing training for the advanced carpenter as well as training to receive the 10-hour OSHA safety card. Strong emphasis is in rafter construction, and roof framing and finishes. The course also explores steel framing in the residential and light commercial setting. Prerequisite: CON-136, CON-204

CON-234 Concrete Specialties 3.00

This course is a combined lecture and lab course. Uses a basic knowledge of concrete gained in Footings and Foundations, CON 132, to further explore advanced and innovative ways of using concrete in the construction industry. The course also allows for the ACI, (American Concrete Institute), concrete certification. Prerequisite: CON-136, CON-132

CON-258 Wall Coverings and Coatings 1.50

This course is a combined lecture and lab course that exposes students to all types of coatings and wall coverings. Topics to be studied include paints, stains, sealers, varnishes, and wallpaper. Prerequisite: CON-136

CON-259 Floor Coverings and Coatings 1.50

This course is a combined lecture and lab course that introduces students to the various kinds of floor coverings such as: wood strip floors, ceramic tile floors, and laminate floors. The course also discusses vinyl sheet flooring, tile, and carpet.
Prerequisite: CON-136

CON-365 Advanced Drywall **1.50**

This is a combined lecture and lab course that further enhances students' ability to finish drywall and apply other interior wall and ceiling finishes. It provides students with the necessary knowledge and skills to finish drywall to a smooth surface and apply a variety of textures. Students will also learn alternate methods of wall and ceiling finishing such as paneling and suspended ceilings. Prerequisite: CON-136, CON-209

CON-366 Exterior Finishing **4.00**

In this course students will study different types of material for exterior finishing such as wood, steel, aluminum, vinyl, EIFS, and brick. There will also be an in-depth look at windows and exterior doors for residential and commercial construction. Included in this class is estimating materials, plan reading and the study of deck building. Prerequisite: CON-136

CON-367 Interior Doors, Cabinets and Millwork **2.50**

This is a combined lecture and lab course in which students will learn to hang interior doors, install the trim around the doors and windows, install cabinets and special shelving, and install a complete stairway balustrade. Prerequisite: CON-136

CON-383 Building Codes and Specifications **3.00**

This course is a study of the construction building codes recommended by U. S. government agencies, the National Board of Fire Underwriters, and Electrical Code. It also covers the development of specifications as used by the construction trades which guide the complete construction process as to the type and quality of materials, workmanship, and the relationship of the parties concerned with specific projects. Prerequisite: BMA-175 and CON-112

CON-917 Experimental Course **1.00 - 4.00**

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CON-949 Special Topics **1.00 - 4.00**

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course

already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CRJ-100 Introduction to Criminal Justice 3.00

This course studies the history of law enforcement and respective agencies and the basic theories of the criminal behavior as well as law enforcement terminology and technology. It emphasizes the duties and responsibilities of the law enforcement officer to the individual and society as a whole and explores and defines techniques, technical terms, and basic procedures.

CRJ-101 Ethics in Criminal Justice 3.00

This course covers the ethical standards and codes of professional behavior for police officers and others placed in positions of public trust. The course includes use of force, gratuities, intra- and inter-agency conduct, integrity, ethical necessity of due process and on-duty and off-duty conduct.

CRJ-110 Patrol Procedures 3.00

This course is an in-depth study of the police uniformed patrol division. Theories and concepts are explored and supplemented with real world experiences of working officers. The course provides an understanding of the patrol function and appreciation of the total environment within which a modern patrol officer must function.

CRJ-113 Field Strategies 3.00

This course covers the individual human behavior and the possible causes, potential and overt criminal behavior that may result, and the interaction of the offender and peace officer. Emphasis is placed on the interpersonal relationship between the citizen and the law enforcement officer.

CRJ-120 Introduction to Corrections 3.00

This course presents the development of correctional theory, the correctional client, trial, sentencing, and institutions involved, and rehabilitation potential through probation and parole. Students acquire the ability to recognize the purpose and function of the correction subsystems, personnel, and processes as they relate to the police and to the total criminal justice system.

CRJ-131 Criminal Law and Procedure 3.00

This course defines criminal law, crimes, elements, and proof requirements. It utilizes the case book method and emphasizes Iowa criminal law statutes. Prerequisite: CRJ-133

CRJ-133 Constitutional Criminal Procedure 3.00

This course presents criminal procedure and the state and federal court system. It covers the laws of detention, arrest, use of force, search and seizure, interviews,

interrogations, confessions, self-incrimination, right to legal counsel, eavesdropping, and wiretapping.

CRJ-139 Mental Health First Aid 1.00

This certification course presents an overview of mental illness and substance use disorders in the U.S. and introduces participants to risk factors and warning signs of mental health problems, builds understanding of their impact, and overviews common treatments. Those who take the full course to certify as Mental Health First Aiders learn a 5-step action plan encompassing the skills, resources and knowledge to help an individual in crisis connect with appropriate professional, peer, social, and self-help care. This course is NOT for those who suffer from mental health issues themselves. We, as first aiders are to give them assistance once we recognize the disorder or crisis, (although it does cover self-help, it is guided by the first responder.)

CRJ-140 Criminal Investigation 1.00

This course provides a preliminary study of crime scene investigation. Topics include objectives and methods of securing and preserving evidence and the sketching and drawing of crime scenes.

CRJ-144 Police Photography 2.00

This course is designed for the second year Police Science student. The course is essentially a study of photography, one of the most important and universally accepted methods of collecting and maintaining crime scene evidence and criminal records. The course includes taking, developing and printing photographs for evidence, records, court proceedings and identification (mugging). Prerequisite: CRJ-262

CRJ-150 Defensive Tactics 1.00

This course provides the student with instruction and practical applications in the areas of physical methods of restraint, control and arrest of suspects and attackers. Also covered are handgun disarming, knife defense, shotgun defense, falls and strikes, tactical officer survival techniques, takedowns, hand-to-hand and ground fighting techniques and vehicle extractions. A practical examination of the use of force and various police arrest/restraint tools is included. Prerequisite: CRJ-133 CRJ-257 or PEA-148

CRJ-168 Weapons Familiarization 1.00

This course covers firearm familiarization, safety, and range practices. It is designed for the student who will probably encounter various firearms during the course of their employment in the Public Safety field and teach safety in dealing with these situations. A criminal history check will be completed by the college through the Iowa Department of Criminal Investigation. A felony or history of domestic abuse is reason for rejection.

- CRJ-200 Criminology 3.00**
This course is designed to acquaint the student with the field of criminology, which is the study of crime and its causal explanations. The topics to be covered include the criminal and his/her role in society; police and courts, and their effects upon criminal behavior; and rehabilitation and punishment as they affect criminal behavior.
- CRJ-201 Juvenile Delinquency 3.00**
This course explains the causes of delinquency in general. The course studies the individual, family, home and social environments as real and potential contributors and causes of juvenile crime. The course also covers differences between juvenile court and adult court, as well as sentence and treatment options.
- CRJ-210 Law Enforcement Management 3.00**
This course involves topics of study to include training and organization of all law enforcement agencies, field and staff organization and separation of duties, budgeting, special and technical divisions and their responsibilities. Prerequisite: CRJ-100
- CRJ-217 Selective Drug Enforcement 2.00**
This course examines abuse of controlled substances and the legal sanctions against possession, manufacture, use and sale. It covers the preliminary identification of controlled substances and users as well as the short- and long-term effects of drug use. Discussion of enforcement techniques such as selective enforcement and clandestine operations is included.
- CRJ-220 Community-based Corrections 3.00**
This course is a discussion of the importance of community treatment programs for juveniles and adult offenders. The principles and philosophy of community treatment are explained as well as the nature of the community treatment agent's work. Major issues and trends in the field are examined.
- CRJ-221 Probation and Parole 3.00**
This course is an introduction to probation and parole, its philosophy, procedures and institutions. Aftercare and post release problems are also studied. Prerequisite: CRJ-120
- CRJ-223 Correctional Administration 3.00**
This course examines the role of the correctional administrator. The philosophies and principles of administration, supervision and retention are covered.
- CRJ-224 Correctional Institutions 3.00**

This course is an introduction to correctional institutions, examining the organization, functions and operations of various facilities. Employment opportunities and duties are also discussed.

CRJ-231 Traffic Law 3.00

This course is a study of the motor vehicle laws of the state of Iowa and traffic control procedures. Topics include enforcement of the laws involved with the apprehension, arrest, evaluation, and prosecution of intoxicated and impaired motor vehicle operators, and associated evidence and courtroom testimony.

CRJ-241 Applied Criminalistics 2.00

This course provides training in the use of numerous criminal detection methods used in the acquisition and preservation of evidence for investigative reports and trials. The course also covers selection and use of evidence found at crime scenes. Students review previous course material with emphasis placed on the practical application of knowledge and learned skills. They also secure, preserve and file various types of evidence for court presentation through simulated crime scenes. Prerequisite: CRJ-144

CRJ-242 Applied Criminalistics 3.00

This course is designed to give the student an overview of the science of crime investigation through lecture and practical exercises. Prerequisite: CRJ-140, CRJ-144, CRJ-262

CRJ-243 Traffic Collision Investigation 2.00

This course is a study of traffic supervision, proper completion of reports, physical evidence acquisition, accident diagrams and analyses, and determination of proof of causation.

CRJ-253 Basic Firearms 3.00

This course covers handgun and shotgun nomenclature, range safety, range etiquette, marksmanship, weapon care, and cleaning procedures for different types of firearms. Basic combat training and familiarization with revolvers and the 12 gauge shotgun is also covered. This course is limited to the student who has successfully completed the prerequisites. The student shall submit and pay for a criminal history check to be run by the college through the Iowa Department of Criminal Investigation. A felony or history of domestic abuse is reason for rejection. Prerequisite: CRJ-150

CRJ-255 Advanced Firearms 3.00

This course covers semi-automatic pistol proficiency training, combat marksmanship and completion of a tactical combat semi-automatic pistol course leading to certification. Prerequisite: CRJ-253

CRJ-257 Physical Fitness & Conditioning 1.00

This course is designed to meet the certification requirements for Iowa Law Enforcement Officers. The curriculum is established by Iowa Code 80B according to the Iowa Law Enforcement Academy Administrative Rules as outlined in 501-3.6 (80B). If the rules change, then the course will change to reflect the most current requirements. Students must be graduates of a two- or four-year program in Police Science or Criminal Justice and must already be hired by a law enforcement agency or sponsored by an agency. Prerequisite: Students must be graduates of a two- or four-year program in Police Science or Criminal Justice and must already be hired by a law enforcement agency or sponsored by an agency.

CRJ-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CRJ-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CRR-102 Sheet Metal Welding 3.00

This course will provide a working knowledge of oxyacetylene usage, MIG welding, along with TIG welding procedures. Specific welding procedures producing necessary weld constructions used in the automotive trade will be emphasized. The student develops skills through practice when completing industry accepted automotive welds on 22 gauge mild steel.

CRR-202 Plastic Repair 3.00

This course provides students with the knowledge necessary to identify and repair the various plastic and fiberglass panels used in modern vehicle construction.

CRR-210 Electricity and Air Conditioning 3.00

This course explores the systems of electricity and air conditioning in automobiles as it relates to collision repair. Topics to be covered are basic electrical circuitry, wiring schematics, test equipment, wiring loom repair, refrigerant recovery, mechanical connections, and overall evaluation of damage to each of these systems. Prerequisite: CRR-411

CRR-323 Sheet Metal Fundamentals 3.00

This course provides the student with the basic theory of metal straightening, tool skill development, auto body nomenclature, and the materials commonly used to

complete the repairs. Students practice roughing, shaping, sheet metal fabrication, metal finishing, and the use of body fillers on automotive body panels.

CRR-403 Exterior Body Construction 3.00

This course provides instruction and practice in methods of adjusting and aligning bumpers, lamps, doors, fenders and exterior body panels. Emphasis is placed on the fit of fenders, doors, hoods, deck lids, grills, and the servicing of hinges and latches.

CRR-411 Interior Body Construction 3.00

This course provides instruction and practice in the servicing of dash assemblies, headliners, seats and seat belts, interior trim, and door hardware. The removal and installation of automotive glass and trim will be practiced.

CRR-504 Frame and Unibody Damage Analysis 4.00

This course studies frame and unibody construction, automotive design and frame damage analysis. The course covers the proper use of alignment equipment, frame gauges and frame repair procedures used to do repairs. The use of frame straightening equipment is demonstrated and put into practice. Training includes suspension parts that are commonly damaged in a collision. Suspension emphasis is on how a misaligned body structure can affect wheel alignment. Prerequisite: CRR-102

CRR-533 Structural Repair 3.00

This course examines the removal, replacement and accepted sectioning procedures of inner structural panels using industry accepted repair procedures. Proper application of anti-corrosion materials to structural repaired areas of enclosed rails and boxed sections are presented. Prerequisite: CRR-102, CRR-323, CRR-403, Corequisite: CRR-504

CRR-551 Integral Body Repair 3.00

This course is designed to identify and demonstrate removal and replacement procedures of outer integral body panels using accepted industry standards. Sectioning of automotive panels and corrosion protection of repaired areas are shown. Prerequisite: CRR-102, CRR-323, CRR-411

CRR-655 Advanced Collision Repair 5.00

This course utilizes lecture and lab activities to provide industry production experience repairing collision damaged vehicles to pre-accident specifications. Auto collision industry standards and procedures are followed as guidelines for acceptable repairs. Prerequisite: CRR-533, CRR-551

CRR-742 Estimating Theory 2.00

This course provides students with the knowledge necessary to write estimates on damaged vehicles. Topics include collision estimating guides and the proper format in writing estimates. It also introduces interpersonal and financial management techniques and reviews customer relations and communication with insurance and body shop personnel.

CRR-805 Refinishing I 4.00

This course combines lecture and lab activities to provide the students with knowledge to analyze paint problems and their remedies. Automobiles are prepared for complete panel refinishing and overall vehicle refinishing. Refinishing is performed following paint manufacturers recommendations. Prerequisite: CRR-811

CRR-811 Surface Preparation 4.00

This course combines lecture and lab activities to introduce the basic procedures of surface preparation for refinishing. Techniques demonstrated include cleaning, sanding, and use of power tools and paint equipment. Students learn to use abrasives, undercoats, solvents and basecoat/clearcoat topcoats, and techniques of color sanding and polishing.

CRR-834 Refinishing II 4.00

This course combines lecture and lab activities to teach spot painting, blending, and color matching as well as the study and use of basecoat/clearcoat paint systems. Intermediate skills will be developed in the use of finesse sanding and polishing. Prerequisite: CRR-805

CRR-874 Advanced Refinishing 4.00

This course combines lecture and lab activities to develop advanced automotive refinishing shop production skills by refinishing paint damaged automobiles to pre-damaged condition. Paint manufacturers recommendations and refinishing shop standards are used to repair the vehicle to customer satisfaction. Prerequisite: CRR-834

CRR-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CRR-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CSC-110 Introduction to Computers 3.00

This course provides a fundamental understanding of computers and familiarizes students with the interaction of computer hardware and software. Emphasis is on the application of microcomputers and hands-on use of software applications, including operating systems, word processing, spreadsheets, databases, presentation software, and files management. Students should plan on some lab time outside of class for homework. Keyboarding/ typing skills highly recommended.

CSC-142 Computer Science 4.00

This is the first in a two-semester sequence of courses that introduces a student to the discipline of computing using a modern programming language. Through extensive practice in coding, debugging, testing, and documentation, students gain exposure to development of problem-solving strategies, algorithm design, and top-down design principles.

CSC-153 Data Structures 4.00

This is the second in a two-semester sequence of introductory computing courses. This course introduces a student to advanced features of a modern programming language. Topics emphasized are data structures, recursion, data abstraction, and sort/search algorithm usage and analysis. Prerequisite: CSC-142

CSC-175 Computer Organization and Assembly Language Programming 4.00

This course introduces hardware organization, various number systems including the binary number system, binary math, memory addressing, data conversions, data representation, assembly language versus machine language, use of condition tests, branches, loops and arrays, subroutines and parameter passing. Prerequisite: CSC-142

CSC-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DEA-101 Professional Orientation 1.00

This course provides an introduction to the dental health team, the profession, ethics and jurisprudence, and professional development. Recognition of patient needs and team building skills are emphasized. Instructor consent is required.

DEA-256 Dental Anatomy 2.00

This course provides introduction to body function and structures; head and neck anatomy, oral embryology, histology and tooth morphology; and related oral pathology as it applies to Dental Assisting. Prerequisite: Instructor Consent

DEA-270 Dental Therapeutics 3.00

This course provides an introduction to pharmacology, nutrition, preventive dentistry concepts, oral diagnosis, and dental/medical emergencies. Background knowledge needed to meet patient needs and identification of related oral pathology is emphasized. Instructor consent required. Corequisite: DEA-256

DEA-274 Dental Therapeutics 2.00

This course provides an introduction to pharmacology, nutrition, preventive dentistry concepts, oral diagnosis, and dental/medical emergencies. Background knowledge needed to meet patient needs and identification of related oral pathology is emphasized. Instructor consent is required. Corequisite: DEA-256

DEA-303 Dental Radiography 4.00

This lecture and laboratory course provides an introduction to principles related to dental radiography. Students learn skill development in intra-and extra-oral radiographic imaging and a variety of processing techniques. Instructor consent is required. Prerequisite: DEA-508, Corequisite: DEA-613

DEA-405 Dental Materials 4.00

This lecture and lab course provides basic principles related to physical and chemical composition, characteristics, and function of dental materials. Students learn skill development in manipulation of materials and individualized laboratory procedures utilized in the dental office. An emphasis on safety, infection control, and quality assessment is included. Instructor consent is required. Corequisite: DEA-256, DEA-508

DEA-406 Dental Materials 5.00

This lecture and lab course provides basic principles related to physical and chemical composition, characteristics, and function of dental materials. Students learn skill development in manipulation of materials and individualized laboratory procedures utilized in the dental office. An emphasis on safety, infection control, and quality assessment ins included. Instructor consent is required. Corequisite: DEA-256, Prerequisite: DEA-508

DEA-508 Fundamentals of Dental Assisting 7.00

This lecture, lab and clinical course provides an introduction to the dental office, instrumentation, equipment, basic intraoral skills development, and operative dentistry procedures. Hazard management and infection control strategies are emphasized. Application of learned skills is provided through a

general dentistry clinical experience. Instructor consent is required. Corequisite: DEA-256, DEA-270, DEA-405, DEA-101

DEA-613 Dental Assisting Specialties 6.00

This lecture, lab, and clinical course provides concepts related to the dental specialties and advances intraoral skills development. Application of learned skills is provided through a variety of general and specialty clinical experiences. Instructor consent is required. Prerequisite: DEA-508, Corequisite: DEA-303, DEA-701

DEA-701 Dental Office Procedures 1.00

This lecture course provides an introduction to dental office procedures, bookkeeping systems, third-party payment plans, appointment control, and communications. Interaction between business and clinical dentistry is emphasized. Instructor consent is required. Corequisite: DEA-101, DEA-256, DEA-270

DEA-710 RDA Expanded Functions 3.00

This course provides theoretical concepts and skills to expand the dental assistant's or dental hygienist's scope of practice to include occlusal registration, gingival retraction, final impression, provisional restorations, application of cavity liners, desensitizing agents, bonding systems, placement and removal of dry socket medication, placement of periodontal dressing, testing pulp vitality, removal of adhesives, and preliminary charting of existing dental restorations and teeth. Instructor consent is required. To be eligible to register for this course, students must: 1. Be a graduate of an ADA-accredited dental assistant program; or 2. Be currently certified by the Dental Assisting National Board; or 3. Have at least one year of clinical practice as a registered dental assistant; or 4. Have at least one year of clinical practice as a dental assistant in a state that does not require registration; and 5. Be employed by a licensed dentist and whose policies allow the dental assistant to perform procedures related to the expanded scope of practice.

DEA-830 RDA Nitrous Oxide Monitoring 1.00

This course is designed to provide the theoretical concepts and skills associated with monitoring of nitrous oxide and oxygen sedation. Course content provides the student with awareness of the indications and contraindications for nitrous oxide and oxygen sedation use, a working knowledge of the equipment, understanding of the procedure for administering nitrous oxide and oxygen sedation, and prepares the student to monitor nitrous oxide and oxygen sedation. Instructor consent required. To be eligible to register for this course, students must: 1. Be a graduate of an ADA-accredited dental assistant program; or 2. Be currently certified by the Dental Assisting National Board; or 3. Have at least one year of clinical practice as a registered dental assistant; or 4. Have at least one

year of clinical practice as a dental assistant in a state that does not require registration; and 5. Be employed by a licensed dentist and whose policies allow the dental assistant to perform procedures related to the expanded scope of practice.

DEA-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DEA-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DRA-101 Introduction to Theatre 3.00

This course is a survey of the elements of theatre. The course covers units on audience/performer relationships, dramatic forms, dramatic literature, history of the theatre, dramatic theory and criticism, and technical theatre.

DRA-112 American Film 3.00

This course demonstrates the full impact of Hollywood filmmaking as an art form, economic force, and cultural indicator. It explores the deeper meaning of American movies--the hidden messages of genres, the social and psychological effects of Hollywood film style, and the mutual influence of society and popular culture.

DRA-130 Acting I 3.00

This course introduces the study and theory of the fundamentals of the actor's art as a means of improving self-expressiveness and communication. Students focus on relaxation and physical awareness, and on developing their imagination, concentration, and characterization skills, through improvisation and other exercises. Voice production and physical techniques are also emphasized.

DRA-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DRF-113 Fundamentals of Technical Drafting 3.00

This is a beginning course for students with little or no previous experience in drafting. The course will introduce students to essential concepts necessary for a fundamental understanding application of technical drawing. The topics include lettering and instrument linework techniques, orthographic projection principles, and basic multiview drawing techniques.

DRF-121 Fundamentals of Technical Drafting II 3.00

This course is a continuation of drafting fundamentals emphasizing working drawings, detailing, dimensioning practices, tolerancing, auxiliaries, and section views. Students build on previous instruction of basic drafting and design.

Prerequisite: DRF-113

DRF-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DRF-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ECE-103 Introduction to Early Childhood Education 3.00

This course gives students a historical and philosophical foundation of the field of early childhood education. It includes an overview of assessment and evidence-based practices. The course also addresses the influences of family-centered practice, inclusion, culture, and language. Students explore early childhood careers.

ECE-106 Child Development Associate Standards 1.00

This course assists the eligible Child Development Associate (CDA) credential candidate with developing and preparing for the Preschool, Infant-Toddler or Family Child Care CDA verification visit and assessment. Students will develop a professional portfolio which includes their professional philosophy statement and various educational artifacts. General topics for discussion include: planning a safe, healthy learning environment, steps to advance children's physical and intellectual development, positive ways to support children's social and emotional development, strategies to establish productive relationships with families and effective program operation, maintaining a commitment to professionalism, observing and recording children's behavior and principles of child growth and development. This course is offered online via the Iowa Community College Online Consortium. Prerequisite: ECE-103 and ECE-243 and ECE-158 or ECE-221

- ECE-112 Portfolio Development I** **1.00**
This course guides students' development of a professional early childhood education portfolio showcasing their knowledge, skills and dispositions in alignment with the NAEYC Standards for Professional Preparation of Students at the Associate Degree level. Prerequisite: CPT scores in Reading at 70 or higher and in Sentence Skills at 74 or higher, OR ACT composite score of 22, OR completion of recommended developmental education
- ECE-113 Portfolio Development II** **1.00**
This course guides students' completion and presentation of a professional early childhood education portfolio showcasing their knowledge, skills and dispositions in alignment with the NAEYC Standards for Professional preparation of Students at the Associate Degree level. This course must be taken in the final semester of the Early Childhood program. Program Coordinator permission required. Prerequisite: ECE-112 and ECE-262
- ECE-133 Child Health, Safety, and Nutrition** **3.00**
This course focuses on evidence-based concepts in the fields of health, safety and nutrition and their relationship to the growth and development of the young child ages birth to eight. It blends current theory with problem-solving, practical applications and assessments. Course content includes collaboration with families and assesses the role of culture, language and ability on health, safety and nutrition decisions in early childhood settings. Students will need to complete or provide proof of current certification in the following: Mandatory Child Abuse Reporter training; Universal Precautions/Bloodborne Pathogens training; Infant, Child and Adult CPR; Pediatric and Adult First Aid training.
- ECE-158 Early Childhood Curriculum I** **3.00**
This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight years old. Students prepare to utilize evidence-based, developmentally appropriate practices in the context of children's family, culture, language and abilities. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions and environments to support each child in the following areas: dramatic play, art, music, fine and gross motor play. Prerequisite: CPT cut scores Reading 70 and Sentence Skills 74 or higher, OR ACT composite score of 22, OR completion of recommended developmental education
- ECE-159 Early Childhood Curriculum II** **3.00**
This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight years old. Students prepare to utilize evidence-based, developmentally

appropriate practices in the context of children's family, culture, language and abilities. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions and environments to support each child in the following areas: emergent literacy, math, science, technology and social studies. Prerequisite: ECE-158

ECE-170 Child Growth and Development 3.00

This course reviews typical and atypical development of children from conception to adolescence in all developmental domains. It examines interactions among child, family, and society within a variety of community and cultural contexts and how each impacts the developing child. This course also addresses theories and evidence-based practices associated with understanding and supporting young children. Prerequisite: CPT scores in Reading at 70 or higher and in Sentence Skills at 74 or higher, OR ACT composite score of 22, OR completion of recommended developmental education

ECE-215 Home, School & Comm Relations 3.00

This course focuses on current understanding of supporting children and families in relation to home, school and community contexts. Emphasis is on building respectful, culturally sensitive relationships with families, utilizing community resources and working with diverse families. Students are required to have a current background check on file before the first class meeting. Program Coordinator permission required. Prerequisite: ECE-103 and ECE-170, ECE-241

ECE-221 Infant/Toddler Care and Education 3.00

This course focuses on care, education and assessment of children from birth to thirty-six months. It prepares students to utilize developmentally-appropriate, evidence-based practices, including responsive caregiving, routines as curriculum, collaborative relationships with culturally, linguistically, and ability-diverse children and families and a focus on the whole child in inclusive settings. Prerequisite: CPT scores in Reading at 70 or higher and in Sentence Skills at 74 or higher, OR ACT composite score of 22, OR completion of recommended developmental education

ECE-241 Early Childhood Lab 2.00

This course provides students the opportunity to observe and interact with children in all three early childhood age divisions: birth to 36 months, 3 to 5 years, and 5 to 8 years in a variety of settings. Students also examine their professional dispositions and career expectations and continue to develop a professional portfolio. For successful completion of this course, students must have on file a high school diploma or GED. Students are required to have a current background check on file before the first class meeting. Program Coordinator permission required. Prerequisite: ECE-103, ECE-112, ECE-158, ECE-170

ECE-243 Early Childhood Guidance 3.00

This course focuses on developmentally appropriate, evidence-based approaches and positive guidance strategies for supporting the development of each child. It emphasizes supportive interactions and developmentally appropriate environments as well as the use of assessment to analyze and guide behaviors. Students study the impact of family and each child's culture, language and ability on child guidance. Prerequisite: CPT scores in Reading at 70 or higher and in Sentence Skills at 74 or higher, OR ACT composite score of 22, OR completion of recommended developmental education

ECE-246 Observation and Assessment 4.00

This course focuses on using observational techniques for assessment and guidance purposes. Students learn to consider children's diverse culture, language and abilities when using assessment measures. Students are required to have a current background check on file before the first class meeting. Prerequisite: ECE-241 , ECE-243 , and Program Coordinator permission.

ECE-262 Early Childhood Field Experience 3.00

This course provides a supervised experience in selected early childhood settings serving children age's birth through eight. It includes integration of theory and developmentally appropriate, evidence-based practice and provides an understanding of working with culturally, linguistically, and ability-diverse young children and families. Emphasis is placed on professional relationships and behavior, appropriate adult-child interactions, basic curriculum planning, and program routines. Students are required to have a current background check on file before the first class meeting. Prerequisite: ECE-133 ; ECE-159 ; ECE-221 ; ECE 243 ; ECE-241

ECE-287 Exceptional Learner 3.00

This course provides an overview of special education and talented and gifted programs and policies for children birth through school age. It includes special education history and legislation as well as characteristics of federally-defined disability categories and IFSP/IEP components. This course prepares students to serve the diverse needs of exceptional students through the use of family-centered and team-based services, evidence-based assessment procedures and modification of teaching methods, classroom management, materials and curriculum. Prerequisite: ECE-170

ECE-290 Early Childhood Program Administration 3.00

This course addresses the basic principles common to administering high quality early childhood programs. Topics include director's roles and responsibilities, state and federal regulations, business procedures, staff development and hiring, policy development, fiscal and facility management, marketing, program

evaluation, child care advocacy, family and community involvement. This course is designed for students who have completed the Early Childhood Studies diploma and persons interested in becoming a program administrator. Prerequisite: Early Childhood Studies diploma or instructor consent

ECE-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ECE-930 Administrative Practicum 1.00

This course provides students with experience in a community-based setting designed to further competencies in early childhood program administration, management and leadership. Prerequisite: Completion of Early Childhood Studies diploma program or current Child Development Associate (CDA) credential; and Instructor Approval., Corequisite: ECE-290

ECE-932 Internship 2.00

This course provides on-the-job experience and practical application of the theories and concepts studied in Early Childhood Education course work through placement at a professional early childhood setting. It involves a coordinated effort between the student, Western Iowa Tech Community College faculty members and a work supervisor at the agency site. Cooperative sites could include area infant/toddler, preschool and early elementary programs in both public and private settings. Students will be required to complete a minimum of 128 hours at an approved early childhood site. Students are required to have a current background check on file before first class meeting. Students must also have current certification in CPR, First Aid, Universal Precautions, and Mandatory Child Abuse Reporter, and meet program health requirements. Prerequisite: ECE-262 and Early Childhood Studies Diploma, Instructor Consent Required

ECE-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ECN-120 Principles of Macroeconomics 3.00

This course addresses the essential concern of macroeconomics; understanding and improving the performance of the economy as a whole by studying topics such as the effect of fiscal policy and monetary policy on inflation, unemployment and economic growth in a global economy.

ECN-130 Principles of Microeconomics 3.00

This course provides tools to analyze the choices made by households, firms and governments, and how these choices affect various domestic market structures and international markets.

ECN-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Prerequisite: Instructor permission required

ECN-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Prerequisite: Instructor permission required

EDU-210 Foundations of Education 3.00

This course is an introduction to professional education providing a historical and philosophical background from which the student can examine his or her own commitment to education. Challenges and issues in education today will be discussed in the context of school organization, funding, curriculum, professionalism, legal issues, and effective teacher characteristics.

EDU-218 Initial Field Experience 2.00

This course will provide opportunities to enhance understanding of the teaching profession and assist with decisions to pursue a career in education. Students will spend time observing K-12 classroom teaching with a licensed educator to gain insights and better understanding of the teaching and learning process.

Prerequisite: EDU-210

EDU-220 Human Relations for the Classroom Teacher 3.00

This course includes interpersonal and intergroup relations and contributes to the development of sensitivity to and the understanding of the values, beliefs, lifestyles and attitudes of individuals and the diverse groups found in a pluralistic society and within current education settings. This course is a required component of Iowa Teacher Licensure.

EDU-240 Educational Psychology 3.00

This course applies the principles of psychology in the field of education to classroom contexts. Topics include child/adolescent development, learning, motivation, instructional techniques, and assessment/evaluation.

EDU-245 Exceptional Learner 3.00

This course provides an overview of special education regulations, policies and programs in educational settings. K-12 pre-service teachers learn the history of special education law, including IDEA, ESSA and other legislative measures, characteristics of the categories of disability per federal and state regulations, characteristics of talent and gifted programs, and basic components of an IEP. This course is a requirement for students seeking K-12 teacher state licensure.

EDU-255 Technology in the Classroom 3.00

This course introduces prospective teacher-prep candidates and other interested students to a variety of digital tools and Internet resources along with best practices in the use of tools and technologies for classroom-related functions. The course focuses on both current theory and issues as well as on providing experiences that will enable the student to select and evaluate software and hardware for the classroom.

EDU-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EDU-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EGT-108 Principles of Engineering 3.00

This course helps students understand the field of engineering and engineering technology. By exploring various technology systems and manufacturing processes, students learn how engineers and technicians use math, science, and technology. The course also includes concerns about social and political consequences of technological change.

EGT-142 Fluid Power I 2.00

This course provides the basic principles and components of hydraulics and pneumatics through lecture and laboratory experiences. Students gain the ability to design and analyze common machinery and tools.

EGT-143 Fluid Power II 2.00

This course emphasizes the practical application of setting up and troubleshooting typical industrial applications. Knowledge gained in EGT 142 Fluid Power I is utilized in this applications course. Prerequisite: EGT-142

EGT-151 Virtual Reality for Manufacturing 3.00

This course provides the student with hands-on knowledge of fundamental virtual reality environments and how they play a key role in the design/manufacturing of products and procedures. Prerequisite: MAT-772 and MFG-322

EGT-159 Statics & Structural Design 4.00

This course provides students with a working knowledge of forces and the effects of forces acting on rigid bodies at rest. There is an emphasis on practical industrial applications throughout the course Prerequisite: MAT-772

EGT-169 Mechanism & Motion 4.00

This course is a study of the motion of machine members and components without consideration of the forces and stresses caused by the motion. Graphical methods are used extensively in the solution of motion analysis problems. Prerequisite: MAT-772

EGT-193 Introduction to Engineering Design 3.00

This foundational course uses a design development process while enriching problem-solving skills. The course helps students create and analyze models using engineering technologies and software.

EGT-202 Digital Electronics 3.00

This foundational course teaches applied logic through work with electronic circuitry, which students also construct and test for functionality. Prerequisite: EGT-108 or EGT-193

EGT-211 Fluid Power III 1.00

This course concentrates on hydraulics and is a continuation of EGT 143 Fluid Power II. Emphasis is on the use of the knowledge gained previously toward the setting up and troubleshooting of typical industrial fluid power applications Prerequisite: EGT-143

EGT-400 PLTW- Intro to Engineering Design 3.00

This course is an introduction to the elements of Engineering Design. Students will learn the history of design, design process, sketching and visualization, geometric relationships, and modeling. Elements of manufacturing production, marketing, analysis, and quality control will also be studied. Students will also learn presentation techniques and develop a portfolio.

EGT-410 PLTW - Principles of Engineering 3.00

This course will assist students with an understanding of the field of engineering and engineering technology. By exploring various technology systems and manufacturing processes, students learn how engineers and technicians use math, science, and technology. Drafting and design are primary aspects of the

course. The course also includes concerns about social and political consequences of technological change.

EGT-416 Civil Engineering and Architecture 3.00

This is a combined lecture and lab course. Study of Engineering and Architecture. Exploring various systems of engineering and architecture.

EGT-420 PLTW - Digital Electronics 3.00

This course introduces the numbering systems used in digital circuits, including Boolean algebra. Circuits such as basic gates, counters, shift registers, and memories will be introduced as they apply to communications and computer systems used in industry.

EGT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EGT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ELE-101 Industrial Safety 1.00

This course covers mechanical, chemical, environmental and electrical aspects of safety. The role of OSHA in the workplace is presented. Students will become familiar with forms such as Material Safety Data Sheets and will be trained in the use of (PPE) Personal Protective Equipment and in other safety procedures related to materials handling and storage. Industrial hazards such as fall protection and caught-in/struck-by will be emphasized. Students will receive the OSHA 10 safety training and will be awarded an OSHA 10 card upon successfully completing this course.

ELE-112 Basic Electrical Theory 3.00

This course will introduce the students to the fundamentals of electricity. Electrical topics will include AC and DC theory, Ohm's Law, Electrical Circuits, Electrical Power Generation, Motors, and Transformers. This course emphasizes electrical safety as students will work with energized circuits.

ELE-132 Introduction to Wiring 3.00

This course is a combined lecture and lab course, designed to instruct the student in Safety, Electrical Ethics, and Labor History. The student will be introduced to the

materials, hand tools, power tools, and the installation requirements of the National Electrical Codes. Prerequisite: ELE-112

ELE-135 Electrical Installation 4.00

This course provides instruction and application activities in electrical theory, schematic print reading, and provides students opportunities to obtain fundamental hands-on skills required for electrical wiring. In the Electrician program, students in this course will have the opportunity to wire a house and in the Robotics & Automation program students will perform industrial wiring.

ELE-157 Advanced Commercial Wiring 4.00

This course familiarizes students with materials, blueprints, National Electric Code requirements and wiring methods in commercial installations. Students are asked to demonstrate their skills in wiring, installing electrical systems and to bend and install conduit using safe and approved practices according to the National Electric Code standards. Prerequisite: ELE-132, Corequisite: ELE-184

ELE-175 Installation of Wiring Systems 4.00

This course provides instruction and application activities in electrical theory and schematic print reading, and provides students opportunities to obtain fundamental hands-on skills required for electrical wiring. The students in this course will gain hands-on experience by wiring a house.

ELE-184 Field Installed Commercial Systems 3.00

In this course students will have the opportunity to develop and apply the electrical skills learned in previous Electrician courses. Students will perform labs directly related to wiring expected in industry or on a job site. Proper OSHA safety standards will be followed and national electrical code will be emphasized. Prerequisite: ELE135

ELE-192 Principles of Motors/Transformers 3.00

This is a course introducing students to the principles of D.C. and A.C. motors and their connection and application. Students will install and repair transformers, including single and three phase connection for various voltages and applications. Prerequisite: ELE-112

ELE-195 Motor Control 3.00

In this course students will learn the fundamentals of how motors are controlled with the use of various control devices. Industry standards in working safely with the installation, maintenance and troubleshooting will be introduced and performed. Electrical symbols, diagrams, equipment and methods used in the design and application of motor control circuits will be discussed. Prerequisite: ELE-112

ELE-197 Advanced Motor Control 3.00

In this course students will gain an advanced knowledge of motors in circuits and of the components found in automated control systems. The use of solid state components and programmable controllers will be introduced. Students will have the opportunity to wire motors in a circuit following safety procedures recognized in the electrical industry. Prerequisite: ELE-195, ELE-112

ELE-222 Supervisory Control and Data Acquisition 3.00

This course discusses concepts related to acquiring data to monitor and control automated equipment. (SCADA) Prerequisite: ELE-112

ELE-224 Electric Code Safety and Grounding Fundamentals 1.00

This course introduces students to the purpose and use of the National Fire Protection Association (NFPA) National Electric Code (NEC), its history, and development with emphasis on proper grounding techniques in relation to the wind turbine industry. It also addresses electrical safety work requirements as outlined in the NFPA Electrical Safety Standards.

ELE-241 HMI/Motion Control Fundamentals 3.00

This course focuses on the development and integration of Human Machine Interface (HMI) systems commonly used in conjunction with Programmable Logic Controllers, (PLC's). Prerequisite: ELT-230

ELE-312 Variable Frequency Drives for Motor Control 1.00

This course is designed to introduce the student to the principles of DC and AC motors including connection and application. A working knowledge of transformers, including single and three phase connection to various voltages and applications will be provided. Prerequisite: ELE-195, ELE-112

ELE-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ELE-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ELT-102 Blueprint Reading 2.00

This course is designed to give meaning to the lines and symbols found on a set of blueprints. Students use inanimate objects and familiar construction shapes or orthographic and isometric drawings to learn the understanding of shapes, sizes

and dimensions. Topics include building terms and construction features of the carpentry, masonry, electrical, mechanical and plumbing trades.

ELT-230 PLC Applications 3.00

This course introduces students to advanced PLC programming techniques. Students will have the opportunity to connect and program the PLC for a variety of simulated applications. Prerequisite: ELT-250

ELT-250 Programmable Logic Controllers 3.00

This course is a combined lecture and laboratory class. This class introduces the use of PLCs, programming PLCs via ladder diagrams, and wiring PLCs to sensors and controllers.

ELT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ELT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EMS-114 Emergency Medical Responder 2.00

This course emphasizes the development of student skills in emergency medical care procedures. Topics include life threatening emergencies, injuries to various body parts, techniques of moving patients, CPR-BLS, and the safety and well-being of the Emergency Medical Responder. Successful completion of course requirements allows students to write national certification examination. AHA BLS Healthcare Provider CPR is provided during this course. Students must be 17 years of age before starting the course.

EMS-217 Emergency Medical Technician 7.00

This course is designed for individuals who anticipate working with an ambulance service, hospital emergency department, fire department, police department, mining operation, or in other occupational fields where medical emergencies are common. Course content includes but is not limited to an overview of anatomy and physiology; medical terminology; patient assessment; basic life support in relation to cardiac arrest, trauma, and other medical emergencies. Instruction in light extrication of the injured is additionally covered. This course also provides the student an opportunity to apply cognitive knowledge and psychomotor skills in a supervised clinical or field setting. Students must be 17 years of age at time of

enrollment, have current AHA HCP provider card, and State approved Mandatory Reporter for Adult and Child. Instructor consent required. Prerequisite: CCPR 1033 and CNUR 1030

EMS-312 Advanced Emergency Medical Technician

7.00

This course will provide the student with roles and responsibilities of the EMS provider including injury prevention and infectious disease; an overview of human systems; pharmacology; venous access; airway management; training for management of medical and trauma emergencies; special considerations of the obstetric, neonatal, pediatric, and geriatric patients; and a focus on assessment-based management. This course will also provide the student the opportunity to apply past and current cognitive knowledge and psychomotor skills in a supervised clinical or field setting. Student must have current Iowa EMT certification, AHA HCP card, and State approved Mandatory Adult and Child Reporter. Prerequisite: EMS-217 , CCPR 1033 and Instructor consent.

EMS-540 NSC Paramedic I

13.00

This course informs students of the EMS provider's roles and responsibilities. Students learn the importance of personal wellness in EMS including injury and infectious disease prevention. The course also provides an overview of human systems, pharmacology, venous access, advanced airway management, patient assessment, and trauma management. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times stated minimum) may be needed to meet the course competencies. Pre-requisites: High School Diploma or GED, Current Iowa or national EMT certification, and current AHA Health Care Provider certification/card. Permission of instructor required. Corequisite: EMS-541, EMS-810, EMS-820

EMS-541 Clinical I

3.00

This course will provide clinical atmosphere for performance of psychomotor skills as described by the National Highway Traffic Safety Administration, National Standard Paramedic Curriculum. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times stated minimum) may be needed to meet the course competencies. Permission of instructor required. Prerequisite: EMS-810, EMS-820, Corequisite: EMS-540

EMS-545 NSC Paramedic II

13.00

The course provides the student with the information and skills for management of medical emergencies and pediatric emergencies. It also includes assessment-

based management and all components of ambulance operations. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times stated minimum) may be needed to meet the course competencies. Permission of instructor required. Prerequisite: EMS-540 , EMS-541 , EMS-810 , and EMS-820, Corequisite: EMS-825 , EMS-546 , EMS-815 , and EMS-547

EMS-546 Clinical II 3.00

This course will provide clinical atmosphere for performance of psychomotor skills as described by the National Highway Traffic Safety Administration, National Standard Paramedic Curriculum. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times stated minimum) may be needed to meet the course competencies. Permission of instructor required. Prerequisite: EMS-540, EMS-541, Corequisite: EMS-545, EMS-825, EMS-815

EMS-547 Field Internship 1.00

Field internship provides the student with an accessibility/opportunity to serve as team leader in a variety of pre-hospital, advanced life support emergency situations. Under the mentoring of experienced advanced care preceptors, the student must successfully complete a minimum of 50 team leads. Students will assess, differentially diagnose, and treat patients in this field internship. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times stated minimum) may be needed to meet the course competencies. Permission of instructor required. This course will commence after the majority of EMS 546 Clinical II competencies have been met as determined by the program director. Instructor consent is required. Prerequisite: EMS-540 , EMS-541 , EMS-810 , and EMS-820, Corequisite: EMS-545 , EMS-546 , EMS-825 , and EMS-815

EMS-810 Advanced Cardiac Life Support 1.00

This course addresses the use of equipment and techniques for establishing and maintaining effective ventilation and circulation, electrocardiographic monitoring and dysrhythmia recognition, intravenous access, employment of pharmacological and electrical therapeutic modalities. This course meets American Heart Association standards. Prerequisite: Permission of instructor required

EMS-815 Advanced Pediatric Life Support 1.00

This course is designed for individuals who provide care for the pediatric patient. The course instructs students in the assessment and management of pediatric patients requiring advanced life support according to the American Heart Association standards. Prerequisite: Permission of Instructor required

EMS-820 Prehospital Trauma Life Support 1.00

This course is designed for individuals who must initially evaluate and stabilize the trauma patient. It is intended to teach the skills necessary for rapid assessment, resuscitation, packaging and transport: stressing those conditions which require immediate transport. Prerequisite: Instructor Consent Required.

EMS-825 Advanced Medical Life Support 1.00

This course will provide the student with an integrated approach to the care of the patient with common medical complaints or presentation. The course moves from initial complaint-based assessment of the patient to field diagnosis and management of immediately treatable underlying illness. Prerequisite: Instructor's Consent Required

EMS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EMS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENG-090 Writing Skills Enrichment 2.00

This course provides students with a review of basic reading and writings skills emphasizing comprehension, literacy strategies, and critical thinking and vocabulary development. This course provides diagnostic and individualized learning experiences to prepare students for further studies in all academic programs. This course may be repeated for credit. However, credit for this course does not apply to graduation requirements. Prerequisite: For CTE program students: CTE program CPT score less than 86. For General Studies students: CPT less than 35

ENG-105 Composition I 3.00

This course is an exploration of writing as a process with attention to audience, purpose and patterns of exposition. Pre-requisite: Assessment and advising.

ENG-106 Composition II 3.00

This course is a continuation of ENG 105 with emphasis on developing more complex, sophisticated forms of exposition. It includes a research paper requiring library research, documentation, and bibliography. Prerequisite: ENG-105

ENG-150 Fundamentals of English Grammar 3.00

This course is an overview of grammatical structure and functions that includes study of parts of speech, sentence types, sentence analysis, punctuation, spelling, capitalization and usage. This is not a developmental English composition or ELL course.

ENG-221 Creative Writing 3.00

This course is an introduction to imaginative writing, offering instruction and extensive practice in writing fiction, poetry, and drama. Student writing is discussed in a workshop setting. Prerequisite: ENG-105

ENG-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENG-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENV-111 Environmental Science 4.00

A combined lecture and lab course focusing on environmental concerns: ecosystems, pollution, population, extinction, ethics, energy, food, conservation, and future interrelationships among these concerns.

ENV-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENV-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ESI-001 Intensive ESL Grammar I 2.00

This course is content-based intensive level I grammar for non-native English speakers. It introduces grammar patterns, present and past tense of regular and irregular verbs and modals. The course provides practical information about grammatical structures including nouns, articles and comparisons. This course is designed to be taken concurrently with Level I Reading, Writing, and Listening/Speaking classes as part of the Intensive ELL program. Prerequisite: Assessment by WITCC ESL program Corequisite: ESI-005, ESI-008, ESI-013

ESI-005 Intensive ESL Reading I 2.00

This course is an entry-level intensive reading course designed for non-native English speakers. Students begin the acquisition of basic reading strategies including guessing meaning from context, identifying the main topic/idea, reading in phrases, finding details and using the dictionary. This course is designed to be taken concurrently with Level I Grammar, Writing, and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Assessment by WITCC ESL program. Corequisite: ESI-001, ESI-008, ESI-013

ESI-008 Intensive ESL Writing I 2.00

This is an entry-level intensive writing course designed for non-native English speakers. Students acquire basic writing skills at sentence level with correct capitalization, punctuation, spelling and beginning grammar structures. This course is designed to be taken concurrently with Level I Grammar, Reading, Listening and Speaking as part of the Intensive ELL program. Prerequisite: Assessment by WITCC ESL program. Corequisite: ESI-001, ESI-013, ESI-005

ESI-013 Intensive ESL Listening/Speaking I 2.00

This course is an entry level intensive listening/speaking course designed for non-native English speakers. Students practice listening and speaking in formal and informal conversations, interviews, and announcements and recorded messages. Practice in pronunciations and reductions, stress and intonation are included. This course is designed to be taken concurrently with Level I Grammar, Reading, and Writing as part of the Intensive ELL program. Prerequisite: WITCC ESL program assessment. Corequisite: ESI-001, ESI-005, ESI-008

ESI-020 Intensive ESL Grammar II 2.00

This course is level II intensive grammar, designed for non-native English speakers. Emphasis is placed on practicing structure in eight basic verb tenses, modals, infinitives, gerunds and other structures. Students will develop skills for making comparisons and for expression of ideas, opinions and feelings. This course is designed to be taken concurrently with Level II Reading, Writing, and Listening/Speaking as a part of the Intensive ELL program. Prerequisite: Achieve level II on WITCC ESL assessment. Corequisite: ESI-026, ESI-031, ESI-036

ESI-026 Intensive ESL Reading II 2.00

This course is level II intensive reading, designed for non-native English speakers. Students continue acquisition of reading strategies including guessing meaning from context, identifying the main idea, skimming, scanning, summarizing, identifying parts of speech and recognizing paraphrases. This course is designed to be taken concurrently with Level II Grammar, Writing, and Listening/Speaking as a part of the Intensive ELL program. Prerequisite: Achieve level II on the WITCC ESL assessment. Corequisite: ESI-020, ESI-031, ESI-036

ESI-031 Intensive ESL Writing II 2.00

This course is level II intensive writing designed for non-native English speakers. Students use the writing process to explore and organize ideas at the paragraph level, expand vocabulary, edit for spelling, grammar and word usage. This course is designed to be taken concurrently with Level II Reading, Grammar and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve Level II on the WITCC ESL Assessment Corequisite: ESI-020, ESI-026, ESI-036

ESI-036 Intensive ESL Listening/Speaking II 2.00

This course is level II intensive listening/speaking, designed for non-native English speakers. Students focus on listening strategies, such as making predictions, taking notes and drawing inferences. Students continue production of English sound system and conversations about familiar topics through simulation of real life situations to help develop fluency and problem solving strategies. Prerequisite: Achieve Level II on the WITCC ESL Battery. Corequisite: ESI-020, ESI-026, ESI-031

ESI-046 Intensive ESL Grammar III 2.00

This course is content-based intensive grammar III designed for non-native English speakers to develop fluency in usage of basic grammatical structures. Students focus on phrase, clause and sentence level structures and related connectors. Expanded use of passive voice and introduction of conditional structures is included. This course is designed to be taken concurrently with Level III Reading, Writing and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve level 3 on WITCC ESL Assessment, Corequisite: ESI-051 , ESI-056 , ESI-061

ESI-051 Intensive ESL Reading III 2.00

This course is level III intensive reading, designed for non-native English speakers. Students develop reading skills including distinguishing general and specific ideas, identifying topics and topic sentences, skimming and scanning, distinguishing facts from theories and facts from opinions, and literal and figurative meanings. This course is designed to be taken concurrently with Level III Grammar, Writing, and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve Level III on WITCC ELL Assessment, Corequisite: ESI-056 , ESI-046 , ESI-061

ESI-056 Intensive ESL Writing III 2.00

This course is level III intensive writing, designed for non-native English speakers. The course leads students through the writing process by providing a wide variety of activities to help master skills necessary for academic writing. This course is designed to be taken concurrently with Level III Grammar, Reading, and Listening/Speaking as a part of Intensive ELL Program. Prerequisite: Achieve level III on WITCC ESL assessment. Corequisite: ESI-046, ESI-051, ESI-061

ESI-061 Intensive ESL Listening/Speaking III 2.00

This course is Level III intensive listening/speaking designed for non-native English speakers. It includes strong emphasis on comprehension of oral language as spoken by native English speakers. Students continue to practice pronunciation, stress, intonation and rhythm of speech to reduce native accents. Emphasis in developing skills in idiomatic expressions, negotiation, reducing miscommunication, and using various levels of directness is provided. Prerequisite: Achieve level III on WITCC ESL battery. Corequisite: ESI-046, ESI-051, ESI-056

ESI-071 Intensive ESL Grammar IV 2.00

This course is intensive level IV grammar, designed for non-native English speakers. Through developmental instruction and multiple practice opportunities students further develop their grammar skills, working towards college level proficiency. This course is designed to be taken concurrently with Level IV Reading, Writing and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve level IV on WITCC ESL assessment. Corequisite: ESI-081, ESI-085, ESI-089

ESI-081 Intensive ESL Reading IV 2.00

This course is Level IV reading designed for non-native English speakers. Students develop higher order comprehension skills. Emphasis in utilizing strategies and skills to increase reading speed and building vocabulary is provided. Reading a variety of academic passages is incorporated in this course. This course is designed to be taken concurrently with Level IV Writing, Grammar and Speech/Listening as part of the Intensive ELL program. Prerequisite: Achieve level IV on the WITCC ESL assessment. Corequisite: ESI-071, ESI-085, ESI-089

ESI-084 Intro to American Culture 3.00

This course will introduce international students to American culture, government, citizenship, and business through a combination of experience and classroom learning.

ESI-085 Intensive ESL Writing IV 2.00

This course is level IV intensive writing designed for non-native English speakers. Students learn the skills necessary to produce written work required in college level programs. Multiple strategies will be learned including outlining, summarizing, revising and rewriting a composition to encourage independent writing. This course is designed to be taken concurrently with Level IV Reading, Grammar and

Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve level IV on WITCC ESL assessment. Corequisite: ESI-071, ESI-081, ESI-089

ESI-086 Fundamentals of Reading and Writing 6.00

This introductory level class is designed for non-native speakers. This course integrates reading and writing skills to prepare students as they work toward college level readiness. Strategies to improve reading, writing, and vocabulary, and grammar knowledge are emphasized. Course may be repeated for credit. This course does not fulfill WITCC's general education requirements.

ESI-087 Intermediate Reading and Writing 6.00

This intermediate level class is designed for international and non-native speakers. This course integrates reading and writing skills to prepare students as they work toward college level readiness. Strategies to improve reading, writing, and vocabulary knowledge are emphasized. Course may be repeated for credit. This course does not fulfill WITCC's general education requirements.

ESI-089 Intensive ESL Listening/Speaking IV 2.00

This course is level IV listening/speaking, designed for non-native English speakers. Students use multiple strategies to expand vocabulary and further develop listening and speaking skills. Numerous opportunities to practice college level study skills including note taking and discussion participation are integral components of this course. This course is designed to be taken concurrently with Level IV Reading, Grammar and Writing as part of the Intensive ELL program. Prerequisite: Achieve level 4 on WITCC ESL assessment. Corequisite: ESI-071, ESI-081, ESI-085

ESI-096 Reading and Writing 6.00

This course is designed for International students and/or non-native speakers, integrating the areas of Reading and Writing in English. Students develop reading and writing English language skills to prepare for college level work. This course may be repeated for credit. Prerequisite: ESI-071, ESI-081, ESI-085

ESI-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ESI-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

- FIN-020 Introduction to Banking and Budgeting 3.00**
This course integrates basic banking concepts and budgeting skills with simulations of real-life financial responsibilities such as paying bills with checks/debit cards, paying rent, investing money, planning for education, and other financial responsibilities. Instructor permission required.
- FIN-030 Introduction to Financial Literacy 3.00**
This course introduces the student to real world concepts that relate to their daily lives. The student will learn how to apply basic concepts to the tasks they will use in the real world, including earning a paycheck, managing a bank account, using credit cards, creating a budget, purchasing a car and home, insurances, retirement, investing and financial planning. Instructor permission required.
Prerequisite: FIN-020
- FIN-040 Financial Literacy 3.00**
This course expands on the real world concepts introduced in Introduction to Financial Literacy. Students learn how to apply basic concepts to the tasks they will use in the real world, including what is needed for income tax preparations, purchasing a car and home, insurances, retirement, investing and financial planning. Instructor permission required. Prerequisite: FIN-030
- FIN-121 Personal Finance 3.00**
This course is an overview of personal financial planning with emphasis in the areas of personal money management, budgeting, taxes, investments, and risk. This course also covers the process of buying/leasing autos, and purchasing a home. Students are introduced to issues relating to credit management and insurance products as well.
- FIN-130 Principles of Finance 3.00**
This course builds on basic knowledge in the areas of accounting and economics. Emphasis is placed on financial analysis and planning as well as working capital management. Prerequisite: ACC-132
- FIN-917 Experimental Course 1.00 - 4.00**
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
- FIN-949 Special Topics 1.00 - 4.00**
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

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| FIN-975 | Service Learning | 1.00 |
| <p>This course integrates service in the community with practical application of the competencies learned in program coursework. It involves a coordinated effort among the student, WITCC faculty member, and a work supervisor in a non-profit community organization that will meet identified community needs and advance the students' understanding of course related content. Permission of instructor and 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor is required.</p> | | |
| FIR-141 | Fire Fighter II | 2.00 |
| <p>This course provides basic fire training relating to the NFPA 1001 standard for Fire Fighter Professional Qualifications. It reflects the most current standards as adopted by the Fire Service Training Bureau and can prepare students to take the written Fire Fighter Two exam and the Practical Skills Performance exam. Prerequisite: All Fire Fighter II candidates must be certified Fire Fighter I prior to entering the Fire Fighter II certification process. All Iowa Fire Fighter I certifications issued by the Fire Service Institute meet this requirement. Those seeking reciprocity should direct their questions to the Fire Service Institute. Prerequisite: FIR-320</p> | | |
| FIR-145 | Strategy and Tactics | 3.00 |
| <p>This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.</p> | | |
| FIR-149 | Fire Protection Hydraulics and Water Supply | 3.00 |
| <p>This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Prerequisite: Recommended High School Algebra or Equivalent</p> | | |
| FIR-184 | Hazardous Materials Technician | 3.00 |
| <p>This course will prepare emergency response team members to: perform advanced control, containment, and/or confinement operations; understand hazard and risk assessment techniques; identify materials using field response plan; understand the various roles within the incident command system; identify, select, and use specialized chemical protective clothing; and perform decontamination activities on personnel equipment.</p> | | |
| FIR-320 | Essentials of Firefighter I | 4.00 |
| <p>This course provides basic fire training relating to the NFPA 1001 standard for Fire Fighter Professional Qualifications. It reflects the most current standards as adopted by the Fire Service Training Bureau and can prepare students to take the written Fire Fighter One exam and the Practical Skills Performance exam.</p> | | |
| FIR-917 | Experimental Course | 1.00 - 4.00 |

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FIR-932 Internship 1.00 - 4.00

This course provides the students the opportunity to job shadow with a paid department and perform skills as outlined in NFPA and IFSTA utilizing a standardized check off sheet. Students will also be exposed to various divisions within the department expanding their knowledge of the fire service employment opportunities. Completion of 64 hours and a completed check off list will be required. Completion of FIR 320 or Firefighter One is required before participating. If NFPA or IFASTA changes standards, then this course check off sheet will also change to reflect current requirements. Prerequisite: FIR-320

FIR-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FLF-141 Elementary French I 4.00

This course is for beginners; not recommended for students who have had two or more years of high school French. Introduction to French language and culture through development of reading, writing, listening, and speaking skills.

FLF-142 Elementary French II 4.00

This course is a continuation of FLF 141 and introduces French language and culture through development of reading, writing, listening, and speaking skills. It further emphasizes and develops pronunciation, vocabulary, and basic grammar. Prerequisite: FLF-141

FLF-231 Intermediate French I 3.00

This course provides a thorough review of essential French grammar. Students further develop their reading, writing, listening and speaking skills through extensive speaking and writing situations and reading of French literature. Prerequisite: FLF-142

FLF-232 Intermediate French II 3.00

This course is a continuation of FLF 231. Students will further develop their reading, writing, listening and speaking skills through extensive speaking and writing situations and reading of French literature. Prerequisite: FLF-231

FLF-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FLF-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FLG-141 Elementary German I 4.00

This course is an introduction to German language and culture through development of reading, writing, listening and speaking skills. Not recommended for students who have had two or more years of high school German.

FLG-142 Elementary German II 4.00

This course is a continuation of FLG 141 furthering the development of reading, writing, listening and speaking skills. Prerequisite: FLG-141 or Instructor consent.

FLG-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FLG-949 Special Topics 1.00 - 4.00

An in-depth study or project in German under the supervision of a faculty member and approved by the department head. May not duplicate a course in the catalog. Prerequisite: Instructor permission required.

FLS-100 Spanish for Professionals: Law Enforcement 1.00

This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for Law Enforcement. Students will develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS-101 Spanish for Professionals: Health Care 1.00

This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for the Health Care profession. Students will

develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS-102 Spanish for Professionals: Business 1.00

This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for the Business profession. Students will develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS-103 Spanish for Professionals: Education 1.00

This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for the Educational profession. Students will develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS-141 Elementary Spanish I 4.00

This course introduces Spanish language and culture through development of reading, writing, listening, and speaking skills. It emphasizes pronunciation, vocabulary, and basic grammar, reading, and writing.

FLS-142 Elementary Spanish II 4.00

This course is a continuation of FLS 141. It will expand on the learning from FLS 141 and develop a deeper understanding and comprehension of the language and culture. It will improve the student's ability to interact with aural and written Spanish. It will improve the student's ability to communicate in both written and spoken form in the language. Prerequisite: FLS-141

FLS-231 Intermediate Spanish I 3.00

Thorough review of essential Spanish grammar. Further develops reading, writing, listening, and speaking skills through extensive speaking and writing situations and reading of Spanish literature. Expands on cultural aspects of the Spanish-speaking world. Prerequisite: FLS-142

FLS-232 Intermediate Spanish II 3.00

This course further develops the skills learned in FLS 231 in reading, writing, listening and interpreting Spanish. It further expands the knowledge of culture and customs of the Spanish-speaking world. Prerequisite: FLS-231

FLS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog. Prerequisite: Instructor consent required.

FLS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

GEO-121 World Regional Geography 3.00

This course is a geographic survey of nations and continents with an emphasis on important physical characteristics of the major regions of the world. Attention is devoted to demographic, economic, political, and cultural development and the consequent contemporary relationship with each other.

GEO-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

GEO-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

GRA-100 Mac OS 1.00

This course is an introduction to the Apple® Macintosh operating system. Topics covered will include Mac OS interface, logging in as a user, customizing your workspace, connecting to a server, creating, naming and saving folders, burning CDs, introduction to iLife, and identifying hardware.

GRA-131 Digital Layout 3.00

This course is an introduction to software used for page layout, print design and publishing. Students are introduced to and practice typography skills by combining text with digital images to create professional layouts. This course also provides the essential skills of digital document construction using Adobe® Acrobat. Students learn the skills needed to create a variety of interactive digital documents in the Adobe Portable Document Format.

GRA-132 Digital Layout II 3.00

This course provides instruction in intermediate level page layout software that builds on previously learned skills introducing new techniques. Students work with paragraph and character styles, multiple page documents with master pages and the use of libraries as well as create rich interactive presentations.

Prerequisite: GRA-131

GRA-140 Digital Imaging 3.00

This course covers an introduction to the Mac OS interface and associated hardware. It also covers the Adobe Photoshop software, which is used to manipulate images used in digital and printed media. Topics include software interface, tools, retouching, collage, scanning, keyboard shortcuts, corrective filters and techniques, color correction and automation.

GRA-141 Digital Imaging II 3.00

This course provides students with advanced techniques in using software to manipulate images for digital and printed media. Topics include automation techniques, speed, resolution, format and corrective filters. Students are introduced to common digital photography problems, color correcting, retouching and sharpening critical area of a photo. It approaches using digital imaging software as an art form. Prerequisite: GRA-140

GRA-173 Typography 3.00

This course introduces the student to the history and principles of good typographic design, including traditional rules that govern typographic usage, how to select an appropriate typeface, and apply type expressively to enhance all forms of communication that depend on the printed word, including web design, publication design and advertising design. Prerequisite: GRA-201, GRA-131

GRA-180 Interactive Design 3.00

This course is needed to keep pace with the ever-developing technology and theory in the area of Digital Marketing, Interactive Design and User Experience. This course provides theory and practice in planning, designing and producing digital marketing projects. Prerequisite: GRA-201, GRA-140, SMM-101

GRA-201 Design Principles I 3.00

The course is the first in a series that serves as an introduction to the principles of design and idea generation with a strong emphasis on typography. Students explore how these principles are applied in the marketplace

GRA-202 Portfolio I 3.00

This is a lab course designed to produce a portfolio through a series of projects and demonstrations. Students will learn to critique and revise projects to create portfolio-quality designed work. Prerequisite: GRA-132, GRA-140, GRA-207

GRA-203 Portfolio II **3.00**

This course is the second in a series designed to produce a portfolio through a series of projects, demonstrations and critiques. Emphasis is on meeting deadlines, proofreading, maintaining document consistencies and interpreting client needs. Students strive to produce a versatile and unique portfolio. Prerequisite: GRA-202

GRA-207 Design Principles II **3.00**

This course is a continuation of Design Principles I with an emphasis on idea generation, presentation, and interpreting client needs. This course also addresses the skills and techniques for planning, tracking, and monitoring design projects. Students learn a practical approach to project management and information design along with addressing usability issues for web design. Prerequisite: GRA-201

GRA-208 Creative Career Seminar II **1.00**

This course is a continuation of Creative Career Seminar I, designed for students in the digital arts to find inspiration, ideas and strategies to ignite their design ingenuity. Focus is on continual improvement of idea generation and development, cultivating the interests that spark creativity and finding new sources of inspiration. Prerequisite: GRA-241

GRA-209 Vector Drawing **3.00**

This course is an introduction to vector drawing tools used to create computer graphics in digital design. Students examine the interface to draw shapes and Bezier curves, and brushes to draw simple to complex shapes with layers. Advanced techniques using masks, meshes, blends and other drawing tools are explored. An emphasis is placed on key commands to facilitate production and precise drawing skills.

GRA-211 Web Studio I **3.00**

This course guides students through the process of designing web sites to create a portfolio through hands-on projects and demonstrations. Students design, create graphics, build, and critique web sites to produce a portfolio of work. Prerequisite: GRA-140 , GRA-207 , and GRA-233, Corequisite: GRA-315

GRA-213 Web Studio II **3.00**

This course is the second in the series to produce a portfolio through hands-on projects, demonstrations, and critiques. Students design, create graphics, build, and critique web sites, including working with a content management system such as WordPress to build and customize a site. Prerequisite: GRA-211, Corequisite: GRA-320

GRA-233 Web Page Coding **3.00**

This course is an introduction to the hands-on coding skills needed for web design including HTML, CSS and Query. Students develop sites including a wireframe

layout, create graphics/slices, and tags to create the basic structure of the site. Then they style the linked site with CSS, add tables, and some interactivity with Query and forms. Finally students use File transfer Protocol to upload the site to a server and view it live on the web.

GRA-240 Project Management for Creative Careers 2.00

This course enables students to manage creative projects effectively from start to finish. Creative projects face special challenges that set them apart from traditional business projects such as managing talent, services, freelancers and clients. These topics along with traditional project management topics will be covered Prerequisite: GRA-286 and GRA-207

GRA-241 Creative Career Seminar 1.00

This course is designed for students in the digital arts to find inspiration, ideas and strategies to ignite their design ingenuity. Focus is on idea generation and development, cultivating interests that spark creativity and finding new sources of inspiration.

GRA-246 Design Concepts and Trends 3.00

The course is the first in a series that serves as an introduction to the principles of design and idea generation with a strong emphasis on typography. Students explore how these principles are applied in the marketplace. Prerequisite: GRA-286, GRA-207

GRA-247 Business Presentations 3.00

This course enables students to design memorable and engaging presentations by focusing on content planning, presentation design, info graphics and support materials. Students use a variety of presentation technologies to create visual stories that support their presentation message. Prerequisite: GRA-140 and GRA-209

GRA-248 Interactive Publications 1.00

This course provides experiences for students to assemble, design, and publish a dynamic iBook for the iPad using the iBooks Author software. The course focuses on the process of adding all of the components of a dynamic iBook, including engaging text, images, audio, video, 3D models, and dynamic web content. Prerequisite: GRA-132 and GRA-207

GRA-255 Motion Media Design I 3.00

This course introduces fundamental concepts for commercial video productions, including graphics and promos for a variety of advertising purposes. The focus is on design presentation and development, screen composition, graphic transitions and content. Students learn how to conceptualize and visualize motion graphic storyboards with digital techniques as required in the professional world using

industry-standard motion graphic software. Prerequisite: GRA-140 ; GRA-209 and GRA-240

GRA-286 Creative Media 3.00

This course covers advertising and brand promotion theory as it applies to designers in graphic, web and marketing. Topics include creative marketing problem solving, the process and planning for successful advertising and promotion, selecting the appropriate media, and creative strategies for advertising and brand promotion.

GRA-287 Design Industry Practices 1.00

This course will provide the design student with a foundation of the standard business practices and ethical considerations of working as a designer. It will also focus on types of employment opportunities and the business practices including copyright, ethics, estimating, contracts and bidding standards.

GRA-315 Responsive Web Design 3.00

This course guides students through the process of designing responsive web sites that will adapt to fit on different screen devices such as mobile, touchscreen tablets, and small notebook computers. Students study fluid layouts, media queries, photo replacement and the code needed to build such flexible sites. Prerequisite: GRA-233 , GRA-140 , and GRA-207, Corequisite: GRA-211

GRA-320 User-Centered Design 3.00

This course is a guide to a common sense approach to web usability and experience. Students are guided to an understanding of human user behavior and how to extract customer insights into creating playful, fun and effective user experiences. Prerequisite: GRA-315, Corequisite: GRA-213

GRA-325 Digital Color Theory 3.00

This course provides insight into the effective use of color through the study of contemporary color theory including additive and subtractive color. This course involves the development of color perception, expression, and application in traditional and digital design, through a series of problem solving exercises and projects. Fundamental studio experiences, along with a historical perspective, will provide insight and understanding to the intrinsic power of color in design. Prerequisite: GRA-209 and GRA-131

GRA-700 Capstone for Creative Careers 1.00

This course involves students in campaign creation, brand management, marketing analytics and the implementation of social media, graphic design and web design tools for the completion of a capstone project. Students will experience teamwork and industry expectations of a marketing plan. Successful

completion of required program courses for first, second, and third semesters prior to enrollment. Instructor consent required. Prerequisite: GRA-208

GRA-917 Experimental Course **1.00 - 4.00**

This pilot course is under the supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

GRA-932 Internship **1.00 - 4.00**

This course offers on-the-job training in an industrial setting using graphic or web design techniques. It allows students to gain experience and professional contacts in the industry and utilize their skills as graphic or web designers to create professional design work. Supervision of job tasks is through an industry professional and coordinated by the college instructor. Prerequisites: Successful completion of required program courses for first, second, and third semesters.

GRA-949 Special Topics **1.00 - 4.00**

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HCM-100 Sanitation and Safety **2.00**

This course provides students with a solid foundation in food service sanitation and safety. Upon completion, students may earn ServSafe Food Manager Certification.

HCM-116 Fundamentals of Baking **3.00**

This course introduces basic theory and preparation of baked items. The focus of the learning is on basic bakery skills, equipment use, recipes, terms, and measuring skills. Products include yeast products, quick breads, pies, fillings, cakes, and cookies. Prerequisite: HCM-100

HCM-188 Knife Skills **2.00**

This course covers all aspects of knife skills. Emphasis is placed on safety and commercial use. Corequisite: HCM-100

HCM-231 Nutrition **2.00**

This course provides an overview of nutrition-related topics including the psychology of eating and evaluation of food intake. Students integrate nutrition principles with culinary cuisine.

HCM-239 Customer Service **2.00**

This course will introduce students to all aspects of customer service in the business realm and in the hospitality industry. The students learn the major components of a customer-focused environment and the key elements of a service culture. In order to be better prepared for the future, students identify key trends that will impact customer service in the years to come.

HCM-240 Menu Planning and Design 2.00

This course is designed to give students an overview of menu planning. Topics include menu layout and design, truth-in-lending guidelines, nutrition in menu planning, menu prices, themed and seasonal menus, product mix and planning resources. Prerequisite: HCM-303

HCM-250 Purchasing 2.00

This course provides the principles and methods of food purchasing with emphasis on specifications and grading of various food products. Students learn financial procedures and controls used in the food service industry.

HCM-252 Stocks and Sauces 2.00

This course introduces students to scratch cookery methods. Areas of study include stocks, thickeners, and roux-based sauces. Corequisite: HCM-100

HCM-262 Financial Management, Purchasing and Cost Control 3.00

This course provides the principles and methods of food purchasing with emphasis on specifications and grading of various food products, as well as the cost control process applicable to a food service operation. Students learn financial procedures and controls used in the food service industry. Emphasis is on the principles of controlling food, beverage, and labor costs. Topics include cost and sales controls that can be established for food and beverage operations. Students analyze labor costs and methods to control them.

HCM-270 Garde Manger 2.00

This course is an introduction to the cold food station (Garde Manger). Students will learn a variety of techniques including cold appetizers, cheeses, dressings, salads and sandwiches. Corequisite: HCM-100, HCM-188

HCM-275 Baking II 3.00

This course provides advanced techniques in pastry and cakes, laminated doughs and other desserts. It is a continuation of HCM 116: Fundamentals of Baking. Prerequisite: HCM-116

HCM-277 Protein Fabrication 2.00

This course focuses on the identification, fabrication, handling, and storage of protein items to include poultry, beef, pork, lamb, shellfish, and finfish. Students are introduced to the concepts of protein cookery. Prerequisite: HCM-307

HCM-278 Cost Control **2.00**

This course examines the cost control process applicable to a food service operation. Emphasis is on the principles of controlling food, beverage, and labor costs. Topics include cost and sales controls that can be established for food and beverage operations. Students analyze labor costs and methods to control them. Prerequisite: HCM-250

HCM-284 Advanced Garde Manger **2.00**

This course is a continuation of HCM 270, with increased emphasis on cold food preparation and presentation techniques. Topics include chaudfroid, aspics, galantines, ballotines, hors d'oeuvre, charcuterie and food decorating. Prerequisite: HCM-270

HCM-286 Advanced Garde Manger **3.00**

This course is a continuation of HCM 270, with increased emphasis on cold food preparation and preservation techniques. Topics include classical concepts such as chaud-froid, aspics, galantines, ballotines, advanced hors d'oeuvre, and charcuterie, as well as more modern techniques such as sous vide and pressure cooking, marinating and advancements in brining. Sausage making, cold-smoking, and curing will be discussed and practiced in the lab. Advanced, multi-step, and fish/shellfish specific entrée salads will also be included. Prerequisite: HCM-270

HCM-287 Ingredient Identification **2.00**

This course provides a fundamental knowledge of ingredients. Students develop their awareness of food products and the world of food.

HCM-303 Front of House **3.00**

This course provides the student the skills necessary to communicate with culinary employers, employees, and other stakeholders. The student will develop professional skills in table side and banquet service. Students should be aware that several lab hours may be outside of the regular academic day. Prerequisite: HCM-321 or HCM-410

HCM-306 Basic Cooking Methods **3.00**

This course introduces students to the components and writing of recipes, the preparation of vegetables, moist heat cooking skills such as boiling, simmering, poaching, stewing and braising. Prerequisite: HCM-100 and HCM-161, HCM-188

HCM-307 Intermediate Cooking Methods **3.00**

This course is a continuation of HCM 306 with an emphasis on food production in a guest-centered environment. Students will explore breakfast foods and their preparation. Students will also learn in depth the dry-heat techniques of Sautéing, Grilling and Broiling foods to varying degrees of doneness using classical

techniques for all three areas. Students will plate and attractively present a variety of Sautéed, Grilled and Broiled foods for evaluation by the Chef-Instructor. Prerequisite: HCM 306 Prerequisite: HCM-306

HCM-308 Food Sustainability 2.00

This course introduces students to the importance of a variety of sustainability practices. Students will implement these practices in food-service operations as a means for controlling operating costs and for being good environmental stewards. Prerequisite: HCM-100

HCM-310 Hospitality Law 3.00

This course provides an awareness of laws concerning hotel-motel management and illustrates the possible consequences of failure to satisfy legal obligations.

HCM-314 Beverage Service 1.00

This course familiarizes students with beverage service, including alcoholic and non-alcoholic beverages. Students learn the tools used for specialty and mixed drinks, the set-up of the bar area for optimum efficiency, and an overview of alcoholic beverages, including wine, beer and spirits. Prerequisite: HCM-303

HCM-321 Introduction to Hospitality Industry 1.00

This course develops an understanding of the hospitality industry and career opportunities in the field. Topics include culinary, hotel, tourism, event planning and other opportunities in the hospitality industry.

HCM-335 Introduction to Event Planning 3.00

This course is an overview of the event management industry. Students will examine the industry and the developing trends in planning events.

HCM-355 Ethnic World Cuisine 3.00

This course focuses on the use of ingredients through an exploration of various cuisines from around the world. Students study the significant historical, cultural, ethnic, and religious influences that are reflected in cuisines of the world.

Prerequisite: HCM-275, HCM-307

HCM-410 Culinary Seminar I 1.00

This course is designed to widen the students' knowledge in the culinary field. Field trips, guest speakers, and other activities will be included.

HCM-411 Culinary Seminar II 1.00

This course is a continuation of Culinary Seminar I and is designed to widen the students' knowledge in the culinary field. Field trips, guest speakers, and other activities will be included. Also, preparation for being a successful intern will be discussed. Prerequisite: HCM-410

HCM-610 Property Operations Management 3.00

This course is designed to give students an understanding of effective facilities management which provides a coordinated, comprehensive, preventive maintenance and repair services for all department facilities within an organization.

HCM-917 Experimental Course 1.00

This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

HCM-932 Internship 1.00 - 4.00

This course provides on-the-job experience on campus or in the industry, giving the student experience and practical application of the competencies learned in the degree program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor.

HCM-941 Practicum 1.00 - 4.00

This course is designed to allow the student to work, generally on campus, in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills from prior learning. Prerequisite: Instructor consent required. Prerequisite: Instructor Permission

HCM-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HCR-112 Heating Fundamentals 3.00

This course covers fundamental principles and skills for all common heating systems. This course is a combined lecture and lab course and includes discussions and demonstrations in heating fundamentals. Safety is greatly emphasized as students are working with actual voltages, and working equipment. Corequisite: ELE-112

HCR-120 Gas Heating 3.00

This course is a combined lecture and lab course that covers various types of residential and commercial gas and electric heating systems. Studies include equipment sizing, installation, set up and repair. Students work with trainers and live equipment in the lab setting Corequisite: ELE-112

- HCR-137 Hydronic Heating Systems 3.00**
This course is a combined lecture and lab course studying the theory and applications in electrical resistance and oil and hydronic heating systems as they relate to residential and commercial heat loss requirements. Studies include installation, troubleshooting, wiring and control circuits. Prerequisite: ELE-112
- HCR-140 Heat Pumps 3.00**
This course is a combined lecture and lab course introducing reverse cycle heating and the components and controls of this popular heat source. This course covers auxiliary heat, C.O.P., installation and maintenance of air-to-air and ground source systems, and includes system wiring and electrical troubleshooting. Corequisite: ELE-112
- HCR-205 Air Conditioning Principles 3.00**
This course is a combined lecture and lab course which deals with the fundamentals of residential air conditioning systems. It emphasizes system components, types of refrigerants, principles of heat transfer, and diagnosis and repair of various systems used in the air conditioning industry. This course studies relationship to temperature and pressure variance including psychometric comparison as applied to commercial and residential air conditioning. Corequisite: ELE-112
- HCR-305 Fundamentals of Refrigeration 3.00**
This course is a combined lecture and lab course covering the theory and laws governing refrigeration, the operation of refrigeration systems, heat transfer, components, and test equipment. It also covers the different soldering and brazing methods and materials used in refrigeration service. Emphasis is on the recovery, recycling and charging methods used Corequisite: ELE-112
- HCR-410 Electrical Applications I 3.00**
This course is a combined lecture and lab course. It is a continuation of basic electricity that includes wiring diagrams, theory of electrical operation, and fundamentals of magnets, component design and basic electronics.
- HCR-430 Electric Motors and Controls 3.00**
This course is a combined lecture and lab course that presents the theory and operation of all motors and controls found in air conditioning, heating, and refrigeration systems. The course includes design, wiring, troubleshooting, and replacement. Corequisite: ELE-112
- HCR-715 Blueprint Reading 1.00**
This course is designed to give meaning to the lines and symbols found on a set of blueprints. It uses inanimate objects and familiar construction shapes or orthographic and isometric drawings to teach the understanding of shapes, sizes

and dimensions. Studies include building terms and construction features of the carpentry, masonry, electrical, mechanical and plumbing trades.

HCR-917 Experimental Course: 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HCR-932 Internship 1.00 - 4.00

This course provides on-the-job training giving the student experience and practical application of the competencies learned in the heating portion of the Air Conditioning, Heating, and Refrigeration Program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: ELE-101

HCR-933 Internship - Air Conditioning 1.00 - 4.00

This course provides on-the-job training giving the student experience and practical application of the competencies learned in the air conditioning portion of the Air Conditioning, Heating, and Refrigeration Program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: ELE-101

HCR-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIS-110 Western Civilization: Ancient to Early Modern 3.00

This course traces the Western tradition from Antiquity through the seventeenth century. Emphasizes the process of change and the dynamics and interrelationships of events of the major societies, governance, and cultures of the Ancient, Medieval, Renaissance and beginnings of early modern times.

HIS-111 Western Civilization: Early Modern to Present 3.00

This course surveys Western history from the age of Enlightenment in the Eighteenth century to present day.

HIS-151 U.S. History to 1877 3.00

This course is an introduction to the basic people, issues, movements, and events which shaped the American experience from Pre-Columbian times to the Civil War and Reconstruction.

HIS-152 U.S. History Since 1877 3.00

An introduction to the basic people, issues, and events which shaped the American experience from the Reconstruction era to the present.

HIS-211 Modern Asian History 3.00

This course surveys the historical, geographical and economic context of the development of the Pacific Basin region: Northeast Asia (China, Japan, Korea, Russia, and the Far East), Southeast Asia (Laos, Kampuchea, Vietnam, Thailand, Myanmar, and India). Examines issues such as modernity versus traditional; the conflict between east and west, political authority and economic growth; the United States in the Pacific; and cultural differences of each individual group of people.

HIS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIT-136 Scribe Fundamentals I 3.00

This course provides a basic overview of the roles and responsibilities of a medical scribe. Content areas include federal, state, local and joint commission standards; Medicare and Medicaid core measures; and documentation and medical legal liability. Corequisite: HSC-114, BIO-163

HIT-236 Scribe Fundamentals II 4.00

This course expands on Scribe Fundamentals I and includes basics of history and physical documentation, functions of hospital or clinic electronic data information, and clinical scenarios in the medical sub-specialties. Prerequisite: HIT-136

HIT-242 Coding I (ICD-10) 3.00

This course provides instruction in the ICD-10 coding system. Students assign ICD-10 codes to medical diagnoses and procedures. Prerequisite: HSC-114 and HIT-248, Corequisite: MAP-123

HIT-244 Basic CPT Coding 3.00

This course provides training in using the CPT (Current Procedural Terminology) coding system to report medical procedures information. Students will assign CPT

codes to surgical operations and procedures. Prerequisite: HSC-114 and HIT-248, Corequisite: MAP-123

HIT-248 Essentials of Medical Coding 2.00

This course provides a basic overview and understanding of the usage of ICD and CPT coding and how they are reported in medical practices. Students understand the logic behind the usage of ICD and CPT. Students assign codes to case studies for a better understanding of how ICD, CPT, modifiers, and HCPCS work together for insurance payment and compliance regulations.

HIT-284 Auditing of Evaluation & Management Codes 1.00

This course provides training on how to conduct an evaluation and management (E/M) audit for physician practices. Students simulate auditing and evaluating a physician's documentation to make sure the physician has fulfilled the requirements of either the 1995 or 1997 documentation guidelines per the AMA and CMS. Corequisite: HIT-244

HIT-301 Electronic Health Records 3.00

This course provides students the opportunity to create, collect, manage, retrieve, and access medical records using an electronic records system. Students will use software to create/edit patient demographic and provider files used in an ambulatory care setting. Corequisite: HSC-114

HIT-313 Medical Office Computer Applications 1.00

This course provides the medical administrative student with "hands-on" experience in the use of a computerized, medical office, practice management system. The student will create, retrieve and edit patient demographic and doctor and financial files, enter CPT and ICD-CM (procedures and diagnoses) codes, enter charges for services, post insurance reimbursement and cash payments, make adjustments and refunds on accounts, generate insurance claims forms, schedule and change appointments and run and analyze practice management reports. Prerequisite: MAP-123, Corequisite: MAP-141

HIT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

- HSC-105 Introduction to Health Occupations 1.00**
This course is designed to provide information on career options for individuals who are interested in pursuing a career in the health care industry. Students are given opportunities for career exploration through research and projects. Topics include: health care delivery systems, legal and ethical issues, health promotion, wellness, and characteristics of health care workers
- HSC-109 Exploring Health Careers and Building Teams 3.00**
This course is designed to provide information on career options for individuals who are interested in pursuing a career in the healthcare industry. It includes the study of team dynamics and communication techniques necessary to work and succeed in the healthcare field. Students are given opportunities for career exploration through research and projects utilizing the internet and library databases. It also provides instruction in browsing the internet, using email, and other computer literacy tools necessary for taking online courses and for careers in the healthcare industry.
- HSC-111 Issues in Health and Society 3.00**
This course presents an overview of current issues, concepts, and theories in health. It provides students with well-developed, carefully considered, and sharply opposed points of view on issues in health and society. This course provides both an overview of areas of conflict in health as well as ways of looking at the conflicts. The purpose of this course is to introduce a number of contemporary topics in order to illustrate how controversies are viewed from a healthcare perspective.
- HSC-114 Medical Terminology 3.00**
This course presents medical terminology as the language of medicine. It also studies spelling, pronunciation and usage, emphasis on word analysis and construction of definitions.
- HSC-122 English/Spanish Medical Terminology 3.00**
This course presents medical terminology as a language of medicine in both English and Spanish. Correct pronunciation, spelling, definition, word translation, and usage covered. Pre-requisites: ESL at level C (Advanced ESL); Test scores on Comprehensive Adult Student Assessment System (CASAS) Test at or above 220 (Scaled Score).
- HSC-123 Transcultural Concepts in Health/ Illness 1.00**
This course explores perception of health and illness among consumers and health care providers. Topics include cultural assessment, health practices of different cultures, conflicts in health care and strategies to request and provide culturally sensitive care.

HSC-127 Kinesiology 4.00

This course combines lecture and lab to provide the student a basic understanding of normal human body movement as related to skeletal, articular, and muscular systems. Anatomical palpations, human gait analysis, selected clinical testing, and basic biomechanical principles are also included.

Corequisite: BIO-174

HSC-138 Clinical Calculations in Healthcare 2.00

This course is designed to provide the knowledge base for the student to understand and correctly perform a variety of clinical calculations used for medication administration in healthcare.

HSC-140 Basic Interpretation for Healthcare 1.00

This course will provide students with the knowledge to provide interpreter services in a health care setting. Students will learn basic interpretation skills and the roles of an interpreter. Students will simulate proper techniques in an interpretation session. Upon completion of this course, students will be able to analyze the importance and function of good healthcare interpreters. This course provides the student with the knowledge to sit for the national interpreter certification.

Prerequisite: Instructor Permission

HSC-143 Pharmacology 3.00

This course provides the student with a framework of knowledge to recognize the basic concepts and principles of pharmacology. Major drug classifications and their actions, indications for use, adverse effects, interactions and contraindications for use are explored. Students are introduced to routes of medication administration, dosage calculation, and patient education related to medications.

HSC-154 Basic ECG Interpretation 3.00

This Basic Arrhythmia Interpretation course provides students with an understanding of rhythm strip interpretation and the significance of the rhythm strip as it relates to patient care. Training in 12 lead ECG interpretation is also included, offering students an understanding of a client's heart rhythm as a whole.

HSC-165 Health Occupations Clinical Requirements 1.00

This course provides health occupation students the opportunity to complete required pre-clinical training and documentation prior to clinical rotation.

HSC-170 Health Care Interaction 2.00

This course is designed to give the student an overview of the various influences on communication, the diversity in society, interactions occurring in the workplace and ethics. Various communication skills including conflict resolution

and assertiveness skills, written documentation, values clarification and moral development are discussed. This course is required for the Physical Therapist Assistant Program. Corequisite: PTA-130

HSC-173 Nurse Aide Theory 3.00

This course is designed to provide the student with the fundamentals of patient care in the health care environment. Students learn basic anatomy, physiology, medical terminology, meeting human needs, safety measures, infection control, and physical care. Corequisite: HSC-174

HSC-174 Nurse Aide Clinical 1.00

This course expands the students' knowledge of tasks, assessments and observations of patients in the health care environment. Students develop technical skills specific to complex needs of the patient Corequisite: HSC-173

HSC-178 Advanced Nurse Aide 4.00

This course is designed as an optional additional unit of instruction to be given either in conjunction with or following the approved 75 hour Nurse Aide course. The 75 hour Nurse Aide course meets the OBRA (Nursing Home Reform) requirements for nurse aides who work in long term care. This additional material provides the learner with content emphasizing the knowledge, attitude and skills necessary for providing patient care in the acute setting. Prerequisite: HSC-173 and HSC-174 or documentation by a transcript or certificate of completion of an approved nurse aide course.

HSC-198 Dental Terminology 2.00

This lecture course provides an introduction to dental terminology related to patient care, documentation, and the business aspect of dentistry.

HSC-218 Clinical Pathology for Allied Health 3.00

This course is an introduction to a variety of medical and surgical conditions which include etiology, symptoms, diagnostic procedures, and treatment. Where appropriate basic pharmacology and effects will be included. Application of therapy according to diagnosis will be discussed. Prerequisites: HSC-114 or BO-169 or BIO 163 Prerequisite: HSC-114, BIO-169 or BIO-163

HSC-245 Team Building 1.00

This course involves the study of team dynamics and communication techniques necessary to promote effective, collaborative team outcomes. Topics include: communication, delegation of responsibilities, goal setting, coaching, conflict resolution, and roles of team members.

HSC-265 Clinical Neurology 2.00

This lecture course provides students with a basic understanding of the central nervous system, peripheral nervous system, and autonomic nervous system in regard to anatomy, neuro-development, and function. This is the groundwork for understanding clinical neuropathologies, therapeutic analysis, and programming planning. Prerequisite: BIO-174

HSC-270 Clinical Exercise Testing 3.00

This course combines lecture and lab experiences to provide students with an in-depth understanding of exercise testing. The course includes principles of pretest clinical evaluation, physical fitness testing and interpretation, specific indications, applications, protocols, measurements, supervision, interpretation of clinical exercise testing, and an overview of exercise prescription. Corequisite: BIO-169 and BIO-151

HSC-272 Certified Personal Trainer 3.00

This combined lecture and lab course involves the student in a variety of specific training practices for health fitness. Prerequisite: BIO-169, BIO-151, HSC-270, Corequisite: BIO-174

HSC-932 Certified Personal Trainer Internship 1.00

This course provides practical experience in the field of personal training under the direct supervision of a certified personal trainer. The certified personal trainer will provide feedback and evaluation of the student. Instructor consent required. Corequisite: HSC-272

HSC-949 Selected Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HUM-101 Introduction to the Humanities 3.00

This course explores the influence of philosophy, literature, drama, and the fine arts upon ancient and modern cultures, including the impact of other cultures upon America's approach to living.

HUM-220 Mythology 3.00

Provides an understanding of the role of mythology in human history throughout the world. The relationships among myth, religion, and culture are explored.

HUM-287 Leadership Development Studies 3.00

This course provides emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. This course is designed to use a variety of learning techniques that may include, but

not limited to, integration of humanities into the study of leadership, discussion, experiential exercises, film and shared-analysis.

HUM-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HUM-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

IND-141 Power Transmission 2.00

This course is designed to provide skills to work on and troubleshoot industrial drive systems including clutches, brakes and industrial bearings. A section on machinery lubrication is also included.

IND-462 Pumps 2.00

This course introduces students to the principles of pumps including connections and applications. Students will gain working knowledge of centrifugal and positive displacement pumps along with operating conditions governing pressure and flows in the system.

IND-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

IND-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

LIT-101 Introduction to Literature 3.00

An introduction to the study of short fiction, poetry, and drama. Prerequisite: ENG-105

LIT-105 Children's Literature 3.00

This course is a survey of children's literature suitable for elementary education. Focus is on the review and selection of materials as well as delivery techniques. Also emphasized is the role of literature in the child's total development.

LIT-110 American Literature to Mid-1800s 3.00

This course surveys American literature from its beginnings through the Civil War. Prerequisite: ENG-105, LIT-101

LIT-111 American Literature Since Mid-1800's 3.00

A survey of American literature from the Reconstruction era to the present. Prerequisite: ENG-105, LIT-101

LIT-133 Minority Voices in U.S. Literature 3.00

This course is an introduction to writers from American minority groups, considered in the social and cultural contexts of the various groups. Includes discussing and writing about relevant issues. Prerequisite: ENG-105

LIT-140 British Literature I 3.00

This course is a survey of British literature from its beginnings through the Restoration and Eighteenth Century, considered in the social and intellectual contexts of the periods. Prerequisite: ENG-105, LIT-101

LIT-141 British Literature II 3.00

This course is a survey of British literature from the Romantic Period to the present, considered in the social and intellectual contexts of the periods. Prerequisite: ENG-105, LIT-101

LIT-150 World Literature I 3.00

This course is a survey of writers of the Western and the Eastern worlds from the ancient Greeks through the Early Modern Period, considered in the social and intellectual contexts of the periods. Prerequisite: ENG-105, LIT-101

LIT-151 World Literature II 3.00

This course is a survey of writers of the Western and the Eastern worlds from the 18th century to the present, considered in the social and intellectual contexts of the periods. Prerequisite: ENG-105, LIT-101

LIT-185 Contemporary Literature 3.00

An introduction to literature of the last three decades, studied in a social and cultural context. Prerequisite: ENG-105, LIT-101

LIT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development

of new curricula. This course may not duplicate any course already in the catalog.

LIT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAP-123 Administrative Medical Office Procedures 3.00

This is a lecture course that provides students with the knowledge and skills needed to work with patients, patient records, and professional responsibilities in the medical office.

MAP-134 Medical Transcription I 3.00

This course provides training in the preparation of medical reports by combining transcription skills with medical terminology and basic anatomy and physiology knowledge. This includes production of rough draft and finished copy from a variety of medical settings. Prerequisite: ADM-105 or 25 gwpm minimum, Corequisite: HSC-114

MAP-135 Medical Transcription II 3.00

This is the second of two medical transcription courses. Improvement of transcription skills and expansion of medical vocabulary used in preparing medical reports in specific specialty areas. This course emphasizes improving output and accuracy in producing a finished copy. Prerequisite: MAP-134

MAP-141 Medical Insurance 3.00

This course introduces the major types of medical insurance coverage and reimbursement. This course also emphasizes insurance terminology, and preparation of insurance claims. It includes maintenance of reimbursement and claims records.

MAP-215 Medical Laboratory Techniques 4.00

This course introduces a variety of the laboratory techniques required of a medical assistant working in a physician's practice. Prerequisite: BIO-163, MAP-333

MAP-333 Fundamentals of Medical Assisting I 4.00

This course introduces students to the clinical aspects of the physician's practice. It emphasizes the clinical competencies required to assess the patient and assist the physician. Corequisite: BIO-163, HSC-114

MAP-338 Fundamentals of Medical Assisting II 4.00

This course expands upon the general competencies in Fundamentals of Medical Assisting I and is more specific to specialty procedures within a physician's practice Prerequisite: MAP-333, BIO-163

MAP-339 Medical Assisting Principles and Concepts Review 2.00

This course involves interactive review. It is designed to integrate and review medical assisting practice within the approved scope of practice for medical assistants and review strategies in preparation for the medical assisting certification examination.

MAP-402 Medical Law and Ethics 2.00

This course introduces principles of medical law, medical ethics, and bioethics. It will emphasize the function of law and ethical issues as it applies to the medical environment.

MAP-610 Medical Assistant Practicum 3.00

This course is an unpaid, on-site practicum experience in a medical facility during which students apply competencies learned in all medical assistant program courses. Prerequisite: MAP-333, BIO-163, 2.0 cumulative pga, permission of advisor, and a C (2.0) or better in core courses as defined by the program advisor.

MAP-612 Medical Assistant Externship 3.00

This course is an unpaid, on-site externship experience in a medical facility during which students apply competencies learned in all medical assistant program courses. Prerequisite: MAP-333 , BIO-163 , 2.0 cumulative gpa , permission of advisor , and a C (2.0) or better in core courses as defined by the program advisor.

MAP-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAP-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAT-041 Basic Math 3.00

This course covers fractions, decimals, ratios, rates, proportions, percents, measurement, tables, graphs, data interpretation, algebraic equations in one

variable, and solving word problems. Credit for this class does not apply to graduation requirements.

MAT-063 Elementary Algebra 4.00

This course is designed to provide students with an introduction to basic algebra. Topics include signed numbers, exponents, algebraic expressions, polynomials, roots and radicals, factoring, linear equations and inequalities, systems of equations, graphing, and applications. Appropriate CPT score on math assessment or prerequisite course required. Credit for this class does not apply to graduation requirements. Prerequisite: MAT-041

MAT-090 Math Skills Enrichment 2.00

This course is designed to prepare students for college level math in AA/As programs. Topics covered will include fractions, proportions, graphs, metric and US customary systems, perimeter, volume, exponents, linear, quadratic, equations and inequalities, direct and inverse variation and polynomials. May be repeated for credit. Students will be expected to attend math labs through the Learning Center in addition to instructional time in the class. This is a pass/no pass course and will not affect the student's GPA.

MAT-102 Intermediate Algebra 4.00

This course is applicable only to students who have basic knowledge of algebra. Reinforcement of topics from elementary algebra stressing problem solving, drills, conclusions obtained from graphs and other data, and a substantial expansion of radical equations. New topics are variations, exponential functions and logarithms, and quadratic equations. Appropriate CPT score on math assessment or prerequisite course required. Prerequisite: MAT-090

MAT-111 Math for Liberal Arts 4.00

This course provides a broad mathematical knowledge to calculate, analyze, and solve day-to-day problems. Topics include number theory and the real number system, algebra, graph and data interpretation, calculator usage, mathematical reasoning process, problem solving techniques, probability and statistics, geometry, and consumer mathematics. Appropriate CPT score on math assessment or prerequisite course required. Prerequisite: MAT-102

MAT-117 Math for Elementary Teachers 3.00

This course examines underlying concepts and connections in elementary school mathematics. Topics include the number systems, mental computation and estimation, sets, geometry, measurement, algebra, probability, statistics, calculator usage, mathematical reasoning process, problem solving techniques, and historical notes. Appropriate CPT score on math assessment or prerequisite course. Prerequisite: MAT-102

MAT-121 College Algebra 4.00

This course addresses linear functions and inequalities, quadratics, conics, polynomials and rational functions, exponential and logarithmic functions, linear systems, matrices and determinants. Additional topics may include sequences, series, permutations, combinations, and probability. Appropriate CPT score on math assessment or prerequisite course required. Prerequisite: MAT-102

MAT-129 Precalculus 5.00

This is an intensive course in College Algebra and Trigonometry. Topics include algebraic equations and inequalities, functions and their graphs, exponential and logarithmic functions, trigonometric identities and equations, sequences and series, and applications. Appropriate CPT score on math assessment or prerequisite course required. Prerequisite: MAT-121

MAT-130 Trigonometry 3.00

This course is designed for students anticipating taking calculus and/or physics. The course includes right angle trigonometry, oblique trigonometry, trigonometric identities and equations, graphing, complex numbers, exponential and logarithmic functions, and applications of all topics. Appropriate CPT score on math assessment or prerequisite course required. Prerequisite: MAT-121

MAT-156 Statistics 3.00

This course is designed to provide the student with a foundation in statistical concepts and procedures. The emphasis is on descriptive statistics, probability, binomial and normal distributions, elementary sampling theory, hypothesis testing, and linear regression. Prerequisite: MAT-121 or MAT-111 or appropriate placement test score.

MAT-157 Statistics 4.00

This course addresses theory, techniques, and applications of statistical analyses; descriptive statistics, probability, sampling, estimation, test of hypotheses, ANOVA, linear regression, and nonparametric procedures. Computer skills and use is needed throughout. Appropriate CPT score on math assessment or prerequisite course required. Prerequisite: MAT-121 or MAT-111 or Appropriate placement test score

MAT-201 Applied Calculus 5.00

This course is a study of functions, limits, continuity, differentiation, and integration. Emphasis is on theory and applications throughout. The course is designed to satisfy the Calculus requirement for most non-math and non-engineering major students. Prerequisite: MAT-121

MAT-211 Calculus I 5.00

This course is a review of analytic geometry and vector valued functions; a study of limits, continuity, differentiation, and integration with emphasis on theory, applications, and computer use throughout the course. Appropriate CPT score on math assessment or prerequisite course required. Prerequisite: MAT-130 or MAT-129

MAT-217 Calculus II **5.00**

This course is a continued study of integration along with a study of transcendental functions, numerical methods, indeterminate form, improper integration sequences and series, conics, and polar coordinates. Emphasis is placed on theory, applications, and computer use throughout. Prerequisite: MAT-211

MAT-219 Calculus III **4.00**

This course is a study of vector algebra and derivatives in two and three dimensions, parametric equations, partial derivatives, three-dimensional graphing, multiple integration, line integrals and Green's Theorem. Emphasis is placed on theory, applications, and computer use throughout. Prerequisite: MAT-217

MAT-772 Applied Math **3.00**

This course covers all fundamental arithmetic concepts and more routine algebraic operations. Arithmetic concepts are fractions, percentages, graphing, decimals, ratios, word problems, metrics, areas, and volumes. Algebraic work includes solving simpler equations, proportions, and formula rearrangement.

MAT-777 Applied Algebra/Trigonometry **3.00**

This course is designed to provide students with basic algebraic and trigonometric concepts. Topics include geometric solids, factoring, linear and quadratic equations, logarithms, systems of equations, and right angle trigonometry. Career applications of these concepts are included. Prerequisite: MAT-772

MAT-917 Experimental Course **1.00 - 4.00**

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAT-949 Special Topics **1.00 - 4.00**

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MFG-125 Intro to Automation **4.00**

This course is designed for the student with little or no knowledge of fluid power, electrical control and automation. Topics include basic principles, components of fluid power and basic design of electrical controls/plc's as it applies to automation/robotics in industry.

MFG-141 Geometric Dimensioning and Tolerancing 2.00

This course introduces geometric dimensioning and tolerancing, an element of engineering drawing that includes the geometry, critical functional relationships, and tolerances allowed for the proper function of a part. Prerequisite: DRF-113

MFG-148 Manufacturing Design 4.00

This course provides students a fundamental understanding of design and construction of special tools. Students design and/or build tooling while completing a hands-on project. Prerequisite: MFG-322 and MAT-772

MFG-206 Manufacturing Processes I 3.00

This course is intended to provide basic knowledge and background covering manufacturing systems, properties and production of metals, basic machine tool elements and basic machining processes. An understanding of safety when working with machine operations will be emphasized.

MFG-322 Introduction to CAD/CAM 3.00

This course is an introduction to computer-aided drafting and computer aided manufacturing. The student will learn basic CAD/CAM software commands and processes and progress to specific command sequence operations related to manufacturing. Prerequisite: MFG-206

MFG-465 Predictive Maintenance - Machine Vibration and Motors 2.00

This course is designed to provide knowledge and skills to work in the area of preventative and predictive maintenance. Subjects to be covered include vibration analysis, oil analysis, and vibration of induction motors.

MFG-466 Predictive Maintenance - Thermography and Ultrasound 2.00

This course is designed to provide knowledge and skills working in the area of prevention and predictive maintenance. Subjects to be covered include thermography and ultrasounds.

MFG-542 Machine Design 3.00

This course is used to prepare the student for basic machine design using common materials such as fasteners, bearings and gears. The student will have the knowledge to prepare complete and accurate mechanical drive assemblies. The design process is explored and cost estimating is introduced. Corequisite: MAT-772

MFG-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MFG-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MGT-101 Principles of Management 3.00

This course introduces students to the role of planning, organizing, staffing, directing, and controlling in formal and informal organizations of all sizes. This course presents theoretical bases and real world examples of implementation.

MGT-130 Principles of Supervision 3.00

This course examines first-line supervisors' responsibilities and discusses aspects of leadership. Students learn practical approaches to dealing with supervisor problems, explore the role of the supervisor in a constantly changing environment, and examine models of effective planning.

MGT-147 Leadership Development 3.00

This course prepares the student for a leadership role in business, government and nonprofit organizations. This course explores leadership styles which are effective in today's workplace and beneficial to society. It helps participants gain insight into their natural leadership style and the implications of that style on work and group performance. The student is provided with practical, down-to-earth principles and concepts of leadership which are reinforced with related activities, exercises, discussions and cases to maximize leadership development.

MGT-170 Human Resource Management 3.00

This course is a combination of theoretical and practical approaches to human resource management. Topics include job design, employee selection, employee development, employee appraisal, and employee termination. Additionally, it explores federal statutes relating to EEO, Affirmative Action, OSHA, and labor unions and also addresses employee compensation and fringe benefit packages.

MGT-174 Training and Employee Development 3.00

This course enables students to understand the process of developing human resources by providing a thorough analysis of training as it relates to organizational objectives and strategies. It emphasizes the conceptual and practical value of developing training programs, with practical examples provided for both large and small organizations.

- MGT-177 Staffing** **3.00**
This course is based on a comprehensive staffing model that focuses on how to achieve a successful person/job and person/organization match. Components of the model include external influences (economic conditions, labor markets, unions, laws and regulations), staffing support systems (staffing strategy and planning, job analysis, measurement), major staffing activities, (recruitment, selection, employment), and staffing system management. Major federal regulations pertaining to EEO/AA are contained in separate appendices.
- MGT-178 Employment Law** **3.00**
This course offers an overview of the principles of employment law and practices. It looks at the legal considerations that occur when an employer-employee relationship is established, and permissible activities in handling personnel problems are covered. Significant Supreme Court used as resources.
- MGT-200 Managing Diversity** **3.00**
This course identifies the strategies and tools necessary to meet the challenges of a multi-cultural workplace. Students explore behaviors that block organizational and individual effectiveness and will become more aware of their own viewpoints and stereotypes. Workplace cultures explored include but are not limited to a variety of ethnic groups, men and women, gay persons, persons with disabilities, and younger/older workers.
- MGT-917 Experimental Course** **1.00 - 4.00**
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
- MGT-938 On-the-Job Training** **2.00**
This course provides on-the-job experience and practical application of the competencies learned in program coursework. It involves a coordinated effort among the student, WITCC faculty member, and a work supervisor in a business for experiential activities. Prerequisites: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor.
- MGT-949 Special Topics** **1.00 - 4.00**
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
- MGT-975 Service Learning** **1.00**

This course integrates service in the community with practical application of the competencies learned in program coursework. It involves a coordinated effort among the student, WITCC faculty member, and a work supervisor in a non-profit community organization that will meet identified community needs and advance the students' understanding of course related content. Prerequisite: Permission of Instructor and Cumulative 2.0 GPA and C (2.0) or better in core courses as defined by the program advisor.

MKT-110 Principles of Marketing 3.00

This course covers consumer and organizational buying behavior, targeting market opportunities, developing and managing new products, marketing channels, logistics, and strategic market planning and implementation. This course examines marketing from the consumers' and organizational perspective.

MKT-140 Principles of Selling 3.00

This course introduces the basic fundamentals of selling. The significant role of selling in our economy is stressed. Effective methods and procedures dealing with how to sell ethically and how to build long-term relationships with customers will be covered.

MKT-150 Principles of Advertising 3.00

This course covers the functions of advertising including advertising objectives, targeting the advertising to the identified consumer, designing the complete campaign strategy, budgeting the campaign, selecting the media, scheduling the campaign, and writing headlines and copy. MKT-110 Principles of Marketing is recommended prior to this course.

MKT-160 Principles of Retailing 3.00

This course gives students a basic understanding of merchandising, retail formats, retail locations, fashion merchandising, merchandise resources, productivity, merchandise accounting, inventory valuation, pricing, planning sales and inventory, purchase terms, store layout and merchandise presentation will be covered.

MKT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MKT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course

already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MMS-101 Mass Media 3.00

A survey course that examines the American media forms including journalism, broadcast, public relations and advertising as well as the world wide web. It is designed for a better understanding of the different forms of Mass Media, how they work and how they impact society.

MMS-131 News Reporting 3.00

This course covers basic aspects of news writing. Topics include covering crime, disasters (accidents and/or natural disasters), campus news, human interest features, professional speeches and/or press conferences, and public meetings. Prerequisite: MMS-132

MMS-132 Writing for the Mass Media 3.00

A comprehensive study of the different forms of writing that encompass the fields of journalism, broadcast, public relations, advertising and electronic media sources.

MMS-142 Media Literacy 3.00

This course is designed to help students understand the history as well as the effects of media on individuals, societies and the world. Topics include the historical development of media, careers in media, media platforms, media effects and the economics of media industries.

MMS-156 Media Ethics 2.00

This course introduces the student to moral concepts in media contexts. Key topics include media freedoms, censorship, privacy, standards, taste, regulation, codes of practice, and the ethics of representation.

MMS-157 Newscast Structure and Producing 3.00

This course will teach the fundamentals of newscast structure and production in a station-like environment. Students will learn theoretical and practical skills, and apply them to real-life news cast situations. Prerequisite: MMS-131, MMS-156

MMS-161 Broadcasting Practicum I 1.00

This course will allow students to apply learned skills by producing broadcasting and journalism projects under faculty supervision. Prerequisite: MMS-132, CIN-104

MMS-162 Broadcasting Practicum II 2.00

This course will allow students to apply advanced skills by producing broadcasting and journalism projects under faculty supervision. Prerequisite: MMS-161

MMS-163 Broadcasting Practicum III 2.00

This course will allow students to apply advanced skills by producing broadcasting and journalism projects under faculty supervision. Prerequisite: MMS-162

MMS-265 Mass Communications Law 3.00

This course is designed to introduce and examine the basic legal aspects in the field of media production, with focus on freedom of speech, censorship, the First Amendment, indecency, privacy, obscenity, and copyright.

MMS-411 Broadcasting Seminar I 1.00

This course requires students to attend specific venues in order to observe and learn about the world of broadcasting and journalism.

MMS-412 Broadcasting Seminar II 1.00

This course requires students to attend specific venues in order to observe and learn about the world of broadcasting and journalism. Prerequisite: MMS-411

MMS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MMS-932 Internship 1.00 - 4.00

This course allows the student to have on-the-job training while under the supervision and direction of a media industry professional. This industry professional will provide evaluation and feedback of the student's skills. The course must be approved by the college instructor and a contract between the employer and the student must be signed.

MMS-941 Practicum 1.00 - 4.00

This experience is designed to allow the student to work, generally on campus, in a faculty supervised activity with well-defined outcomes resulting in the applied learning of theory. Such activities may include public relations, journalism, newswriting and editing, broadcasting, audio and video production. This will be a coordinated effort between the student, faculty members, and the work supervisor involving evaluations and assessment. Prerequisite: Instructor Consent

MMS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MOT-104 Power Sports Shop Safety 1.00

This course is an introductory course that provides students shop skills including tool identification and proper usage, fastener handling, use of power tools and lifts, and related shop equipment. Fastener type, size and identification as well as common repair methods will be introduced. Safety concerns of running powersports vehicles on work benches and Dynamometers are demonstrated and practiced. Students become familiar with shop manuals, all OSHA safety guidelines and EPA regulations related to working in a Motorcycle/Powersports repair business.

MOT-109 Fundamentals of Small Engines 3.00

This course provides students with a fundamental understanding of the operation, maintenance, and repair of small gas engines. Students focus on engine theory and diagnostics of the entire system application. Prerequisite: MOT-104

MOT-110 Air-Cooled V-twin Engines 3.00

This course provides students with a fundamental understanding of the history, design, construction and repair of Air-cooled V-Twin Engines. Students focus on engine theory and diagnostics of the entire system application. Air-Cooling and Lubrication Systems theory of operation, construction and design are introduced. Disassembly and assembly on an Air-Cooled V-Twin engine will be demonstrated and practiced by students. Students will be exposed to multiple manufacturers of V-Twin engines. Prerequisite: MOT-104

MOT-123 Wheels and Tires 2.00

This course introduces students to the wide variety of wheels and tires used on motorcycles and ATVs. Students are expected to identify flaws in wheels and tires. Tire repair and replacement are demonstrated and performed by the student. Safe operation of mounting and balancing equipment is emphasized. Prerequisite: MOT-104

MOT-127 Suspension and Brake Systems 4.00

This course allows students to become proficient in maintaining and repairing motorcycle/ATV suspension and brake systems. Students learn to align, adjust and repair suspension systems and repair or replace brake pads and drums. Prerequisite: MOT-104

MOT-128 Motorcycle Engines Two and Four Stroke 2.00

This course presents the basic operation of 2 & 4 stroke engines with an emphasis on identification and functionality of 2 & 4 stroke engine components and how these components are interrelated as well as various designs of 2 & 4 stroke engine construction. Students learn proper service manual usage, how to research parts, and utilize other resource materials for locating manufacturers' specifications. In addition, students learn cooling and lubrication systems theory

of operation, construction and design is introduced. Prerequisite: MOT-104, Corequisite: MOT-129

MOT-129 Motorcycle Engines Two and Four Stroke Lab 2.00

This course prepares students to disassemble, inspect, and reassemble 2 & 4 stroke engines. Students learn proper parts storage, inspection, and diagnosis during disassembly as well as making precision measurements. Lab experience also includes more in-depth, hands on experiences of the timing, torque procedures and sealing methods used during re-assembly of 2 & 4 stroke engines, lubrication and cooling systems removal, and installation and inspection procedures. Prerequisite: MOT-128, MOT-104

MOT-130 Engine Overhaul/Repair 3.00

This course focuses on the overhaul and repair of the mechanical system of the engine. Lab activities include the diagnosis and repair or replacement of worn components. Students are introduced to specialty tools used for engine overhauling. Testing equipment and procedures are utilized to identify engine faults or potential failures related to carburetors, valves, compression and cylinders. Prerequisite: MOT-104, MOT-128, MOT-129

MOT-132 Motorcycle & ATV Electrical Systems Diagnostics 2.00

This course allows students to continue improving their diagnostics and repair skills on Motorcycle/ATV electrical systems. Students locate and repair electrical related problems. Computer diagnostics and specialty test equipment are introduced. Prerequisite: MOT-205

MOT-133 Powersports Electrical Systems 3.00

This course introduces students to the basics of electricity used on small engines, motorcycles and ATVs, including an understanding of electrical components related to these machines. Students learn to use test equipment and read and perform basic diagnosis using an electrical schematic. Prerequisite: MOT-104

MOT-134 Fuel and Ignition Systems 3.00

This course provides students with an overview of the entire fuel and ignition system essential in the operation of a motorcycle/ATV engine. Students identify components common to most engine carburetors and ignition systems. Common ignition component and fuel system failures are emphasized to introduce students to basic diagnostics. Corequisite: MOT-104

MOT-135 Motorcycle Set-up and Delivery 1.00

This course prepares students for set-up and delivery procedures used in dealerships. It includes proper procedures for inspecting motorcycles and ATV's following first time assembly and machine setup. Proper use of manufacturers PDI

(pre-delivery inspection) forms and documentation methods will also be demonstrated. Prerequisite: MOT-104

MOT-137 Transmissions and Drive Systems I 2.00

This course focuses on the fundamentals of most Metric transmission and drive systems contained in a common engine case. Students learn the theory of manual and automatic drive systems and transmissions in motorcycles and ATV's. Student learning includes maintenance, repair, replacement and adjustment of clutches, primary and final drive components and systems. Automatic and manual transmissions are disassembled, inspected and reassembled. Prerequisite: MOT-129, MOT-104

MOT-138 Transmission and Drive Systems II 2.00

This course is a continuation of manual and automatic drive systems and transmissions for motorcycles and ATVs. V-Twin and ATV transmissions and clutches will also be introduced. Students further develop their skills in inspecting, diagnosing and repairing drive systems and transmissions. Labs include the student becoming familiar with the variations and differences of individual makes of motorcycles and ATVs. Prerequisite: MOT-137

MOT-204 ATV & UTV Powersports Vehicles 4.00

This course allows students to become proficient in maintaining and repairing All-Terrain Vehicles (ATV) and Utility Terrain Vehicles (UTV) systems. Students learn to align, adjust and repair suspension, engine configurations, chassis designs, drive and steering systems. Industry application and safety is also introduced. Prerequisite: MOT-104

MOT-205 Advanced Diagnosis & Troubleshooting 3.00

This course allows students to continue improving their diagnostic and repair skills on Motorcycle/ATV vehicles. Students perform problem solving diagnostics that effect overall machine performance and handling. Procedures for verifying customer complaints will be demonstrated and practiced. Computer diagnostics and use of specialty test equipment is introduced. Dynamometer analysis will also be introduced. Prerequisite: MOT-128, MOT-133, MOT-104

MOT-206 Motorcycle Powersports Capstone 4.00

This course focuses on the review of the top ten (10) entry level skills of a Motorcycle and Powersports Mechanic. Topics will include powersports tire service, engine diagnostics, fluid service, drive systems service, tune up by manufacturers specifications, suspension service, brake service, electrical diagnostics, and fuel systems service. Prerequisite: MOT-130, MOT-132, MOT-255

MOT-212 Motorcycle & ATV Tune Up/Maintenance 3.00

This course allows students to combine electrical and mechanical skills they have learned to meet the required maintenance schedules demanded by the manufacturers. Students perform tune-ups and service procedures related to maintaining the entire motorcycle or ATV's engine, electrical system, and fuel system. Chassis, wheels and brake system maintenance requirements will also be performed. Prerequisite: MOT-128, MOT-133, MOT-104

MOT-255 Performance Engine Tuning 2.00

This course allows students to discover specialized engine performance for engines related to high-performance or competition machines. An understanding of safe engine modifications and limitations is emphasized. Prerequisite: MOT-104

MOT-259 Shop Management 2.00

This course introduces students to the essential elements of managing a motorcycle/ATV business including inventory, ordering, scheduling, customer service, safety and basic accounting practices that are specifically related to the motorcycle powersports industry. Hiring, managing and time tracking of employee performance is also covered.

MOT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MOT-947 Practicum 1.00 - 4.00

In this course students gain on-the-job experience and practical application of the competencies studied in the Motorcycle/Powersports Technology course work. It involves a coordinated effort between the student, Western Iowa Tech Community College faculty members, and the work supervisor in the business, for these experimental activities. Students are required to complete a minimum of hours as specified per credit hour at a motorcycle/powersports business. Completion of the first year of the Western Iowa Tech Motorcycle/Powersports Technology Program and instructor consent is required.

MOT-949 Special Topics 1.00 - 4.00

In this course students gain mock, on-the-job, experience to better prepare themselves for the rigorous responsibilities required of a technician. There are opportunities for students to engage in practical application of the competencies developed in the first year of the Motorcycle/Powersports Technology program. Pre-requisites: Completion of the first year of the Western Iowa Tech Motorcycle/Powersports Program and instructor permission.

MUA-101 Applied Voice 1.00

This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature.

MUA-102 Applied Voice II 1.00

This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA-101

MUA-103 Applied Voice III 1.00

This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA-102

MUA-119 Class Piano 1.00

This course entails class piano lessons for music majors to prepare students for the piano proficiency test, including the study of fundamental keyboard technique, scales, chord progressions, and accompaniment styles. Also includes study of skills necessary to accompany students and play choral scores. This course may be repeated for credit. Prerequisite: Instructor permission required

MUA-120 Applied Piano 1.00

This course offers private piano lessons for musicians with varied background and experience. It includes the study of keyboard fundamentals, survey of solo piano literature, and preparation for performance of solo piano literature. For music majors, the course also includes the study of skills necessary to accompany students and play choral scores. This course may be repeated for credit. Prerequisite: Instructor permission required

MUA-124 Applied Guitar 1.00

This course offers private lessons in guitar for musicians with varied background and experience. It includes the study of guitar fundamentals, survey of solo guitar literature, and preparation for performance of solo guitar literature. This course may be repeated for credit. Prerequisite: Instructor permission required

MUA-126 Applied Strings 1.00

This course offers private lessons in strings for musicians with varied background and experience. It includes the study of string fundamentals, survey of solo string literature, and preparation for performance of solo string literature. This course may be repeated for credit. Prerequisite: Instructor permission required

MUA-143 Applied Brass 1.00

This course offers private lessons in brass for musicians with varied background and experience. It includes the study of brass fundamentals, survey of solo brass literature, and preparation for performance of solo brass literature. This course may be repeated for credit. Prerequisite: Instructor permission required

MUA-170 Applied Woodwinds 1.00

This course offers private lessons in woodwinds for musicians with varied background and experience. It includes the study of woodwind fundamentals, survey of solo percussion literature, and preparation for performance of solo woodwind literature. This course may be repeated for credit. Prerequisite: Instructor permission required

MUA-174 Wind Instrument Playing Techniques I 1.00

This course provides instruction in basic playing techniques for wind instruments and the use of play-testing as a diagnostic tool. The course introduces students to basic embouchure, hand position, and characteristic tone quality of wind instruments, and proceeds to build technique and facility on the instrument. Woodwind, brass, clarinet and flute instruments will be covered.

MUA-175 Wind Instrument Playing Techniques II 1.00

This course provides instruction in basic playing techniques for wind instruments and the use of play-testing as a diagnostic tool. The course introduces students to basic embouchure, hand position, and characteristic tone quality of wind instruments, and proceeds to build technique and facility on the instrument. Woodwind, brass and saxophone instruments will be covered.

MUA-176 Wind Instrument Playing Techniques III 1.00

This course provides instruction in basic playing techniques for wind instruments and the use of play-testing as a diagnostic tool. The course introduces students to basic embouchure, hand position, and characteristic tone quality of wind instruments, and proceeds to build technique and facility on the instrument. Double reeds, harmony woodwinds and oboes will be covered.

MUA-180 Applied Percussion 1.00

This course offers private lessons in percussion for musicians with varied background and experience. It includes the study of percussion fundamentals, survey of solo percussion literature, and preparation for performance of solo percussion literature. This course may be repeated for credit. Prerequisite: Instructor permission required

MUA-201 Applied Voice IV 1.00

This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey

of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA-103

MUA-202 Applied Voice V 1.00

This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA-201

MUA-203 Applied Voice VI 1.00

This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA-202

MUA-219 Class Piano II 1.00

This course expands students' piano abilities developed in Class Piano I. Students continue to learn basic elements of piano playing. Class Piano I-IV prepares students for the piano proficiency exams often required to transfer to a four year university. Instructor permission is required. Prerequisite: MUA-119

MUA-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MUA-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MUS-100 Music Appreciation 3.00

A general course designed to make the student more aware of musical form, media, genres, musical periods, and the essential role of music in life and culture. Emphasizes the development of tools for intelligent listening and appreciation.

MUS-102 Music Fundamentals 3.00

This course introduces the basic materials of music, including musical notation, melody, harmony, rhythm, major and minor scales and keys, chord construction, composition and transposition. It is intended for students with strong interest but limited background in music theory.

MUS-115 Music Theory I 2.00

The course introduces the basic materials of music, including musical notation and the basic elements of music including melody, harmony, rhythm, texture, keys, major and minor scale structures, chord construction, and composition. This class is intended for students with strong interest but limited background in music theory. Corequisite: MUS-125

MUS-116 Music Theory II 2.00

This class is a continuation of Music Theory I which includes the knowledge base of notation, melody, harmony, rhythm, scales, keys, texture and chord construction. This course expands that base to include music composition and analysis. The program of study also includes melodic counterpoint and harmonic construction, with an emphasis in building student understanding of musical form. This class is intended for students with a strong interest and background in music theory. Prerequisite: MUS-115, Corequisite: MUS-126

MUS-117 Music Theory III 2.00

The class builds upon concepts mastered in Theory I and II. Compositional skills are strengthened through study of voice leading, different types of motion, common chord progressions, chord resolutions and simple counterpoint. Students will analyze standard compositional forms of different historical periods and will utilize them in their own compositions. This class is intended for students with strong music theory background. Prerequisite: MUS-116, Corequisite: MUS-225

MUS-125 Ear Training/Sight Singing 2.00

This course develops the ability to recognize and notate simple intervals, rhythms, melodies and chord progressions. Sight-singing skills are strengthened using the sol-feggio method. Basic piano keyboard skills are acquired. Music majors must take this course in conjunction with MUS-115. Corequisite: MUS-115

MUS-126 Ear Training/Sight Singing II 2.00

This course is a continuation of MUS 125 which has developed the student's ability to recognize and notate simple intervals, rhythms, melodies and chord progressions and to sight-sing basic melodies. This class introduces larger intervals, compound meter, II-V-I chord progressions, and sight-singing of melodies containing intervals up to an octave. Accidentals are introduced in sight-singing. Prerequisite: MUS-125, Corequisite: MUS-116

MUS-128 Music Notation 2.00

This course prepares students to write musical sentences, chords, songs, and lyrics utilizing composition software. Students orchestrate music for a variety of different instruments, as well as choral and orchestral scores. This course introduces industry standards for music publishing.

MUS-140 Concert Choir 1.00

This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community.

MUS-141 Concert Choir II 1.00

This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS-140

MUS-142 Concert Choir III 1.00

This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS-141

MUS-150 Chamber Ensemble 1.00

This course is an advanced choral ensemble which provides advanced instruction in vocal production techniques, advanced music theory and advanced sight-singing skills. Students specialize in the performance of a cappella and chamber music from the Middle Ages to the Twentieth Century. The students perform in concerts throughout the year, requiring some out of class rehearsals and concerts, including after school evenings, and weekends. Each member of this class is expected to attend weekly sectionals and work independently to improve their voices. Choir members are also encouraged to study privately. Students must be available to tour. This course may be repeated for credit. Corequisite: MUS-140 or MUS-141 or MUS-142, Prerequisite: Audition and instructor consent required.

MUS-189 Jazz Combo 1.00

This course provides the opportunity for jazz instrumentalists to study and perform the art of jazz in a small-ensemble setting. The course content includes learning standard jazz combo literature and improvisation techniques. Jazz combos will be selected through audition, and prior experience on a band instrument commonly used in jazz is needed. This course may be repeated for credit.

MUS-199 Music History 3.00

This course provides historical background necessary to apply progressively theoretical aspects of music. Included in this course are music elements such as form, media, genre, style, characteristics of various musical time frames, and the essential role of music in life and culture. Prerequisite: MUS-115

MUS-202 World Music 3.00

World Music provides students with the opportunity to study the music of diverse non-Western cultures. The course relates the music of a region to its history and cultural identity. Designed for the general student as well as music majors, the course will use a hands-on approach to explore the basic elements of global music and the ways that music impacts the culture and traditions of a country.

MUS-205 Jazz History and Appreciation 3.00

This course studies the elements and history of jazz music with concentration on critical listening skills. Includes a review of jazz history, styles, genres, form and content, schools of composers/performers and social and historical events of the past and present that influence music selections. This course is designed for the general college student and is not highly technical.

MUS-215 Music Theory IV 2.00

This course continues to build upon the knowledge developed in Theory III. The course utilizes elements of music which include: musical notation, melody, harmony, rhythm, texture, keys, major and minor scales structures, modes, chord construction, composition, and transposition. All elements will be related to relevant historical periods. Students will strengthen knowledge of musical techniques and concepts as they appear in each of the historical eras: Medieval, Renaissance, Baroque, Classical, Romantic, 20th Century and Jazz and Modern Music. This class is intended for students with strong music theory background. Prerequisite: MUS-117, Corequisite: MUS-226

MUS-225 Ear Training/Sight Singing III 2.00

This course is a continuation of Ear Training and Sight Singing I and II. Transcription of melodies will progress from one- and two-part dictations to 4-part harmonic dictation. Aural recognition of common chord progressions will be developed, as well as four-part sight-singing in various compositional styles. Rhythmic dictation will stress cut-time, compound meters, and asymmetrical meters. Sol-feggio studies will expand to include reading choral octavos in syllables. Prerequisite: MUS-126, Corequisite: MUS-117

MUS-226 Ear Training/Sight Singing IV 2.00

This course is a continuation of Ear Training and Sight Singing I, II and III. Harmonic dictation will expand from three-chord sequences to seven chords. Aural recognition of more complex chord progressions will be developed, as well as independent four-part sight-singing in compositional styles which include accidentals and mixed meters. Excerpts from standard literature will be incorporated into both dictation and sight-singing. Rhythmic dictation will expand to include mixed meters. Students will lead sol-feggio study exercises, including modes. Students will choose a recording to transcribe in all aspects. Prerequisite: MUS-225, Corequisite: MUS-215

MUS-240 Concert Choir IV 1.00

This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS-142

MUS-241 Concert Choir V 1.00

This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS-240

MUS-242 Concert Choir VI 1.00

This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS-241

MUS-267 Pro Tools 3.00

This course focuses on the skills needed to function within the digital audio workstation environment at a basic level. The goal of this course is to help learners start working on their own projects in computer recording. Students should have a familiarity with basic computer skills and musical knowledge to be successful in this course. Prerequisite: MUS-285

MUS-273 Band 1.00

This course is an instrumental ensemble which provides instruction in playing techniques, music theory, and sight reading skills. Students will perform music from a variety of genres including Jazz and Blues. The students perform in concerts throughout the year, requiring some out of class rehearsals and concerts, including after school evenings, and possibly weekends. Band members are also encouraged to study privately through WITCC's Applied Lessons. This course may be repeated for credit.

MUS-285 Audio Production & Equipment I 3.00

This course includes the theory and application of analog audio production and signal flow, including analog tape editing and recording techniques. It addresses effective sound reinforcement, achieved through the use of microphones, mixers, signal processing, power amps, and speakers. Students are introduced to the audio components and equipment and given practical applications in analog production and sound system operation. Prerequisite: ELE-101, Corequisite: MUS-291

MUS-287 Audio Production & Equipment II 3.00

This course is a continuation of MUS 285 Audio Production & Equipment I and introduces advanced signal processing techniques, digital delays and modulation effects, equalizers, and reverbs in the context of building a professional mix. Students utilize applications of digital audio recording and editing, emphasizing mixing techniques of Pro Tools systems. Prerequisite: MUS-267, MUS-285

MUS-288 Topics in the Modern Music Industry 2.00

This course provides the opportunity for students to examine diverse issues such as copyright, publishing, hearing loss, digital downloads, internet music culture, the Volume War, the analog vs. digital debate, the importance of sound quality in audio productions, the future of music/audio production and more, as they relate to the average listener/consumer, musicians, and audio professionals alike.

MUS-289 System Assembly & Maintenance 3.00

This course reviews basic electronics and sound principles as well as set-up and signal flow of consoles, calibration, and operation of recording equipment. Topics include studio layout and signal routing, equipment interface, grounding and maintenance. Students are provided hands-on application of systems assembly and maintenance as well as situational experience in troubleshooting techniques. Instructor consent required.

MUS-291 Audio Principles and Theory 3.00

This course examines the fundamentals of sound, and the history, theory and techniques of audio production. Students develop critical listening skills and analytical abilities to engage in effective audio manipulation. Students identify, measure, and manipulate sound and frequencies, and apply sound dampening techniques. Students learn the fundamentals of how to capture, edit, mix and master audio using a variety of analog and digital principles and equipment. Prerequisite: ELE-101

MUS-301 Live Sound Production 3.00

This course prepares students for live sound production. Through instruction and remote live recording session experience outside of the traditional recording studio, students learn and apply the fundamentals of running remote multi-track recording sessions in indoor and outdoor venues. Techniques to be covered include stage set-ups, stylistically dependent instrument and vocal setups, microphone choice and placement, speaker construction and power-matching of sound reinforcement equipment, tracking a remote recording session, dealing with weather and other remote location concerns, mixing while multi-track recording, session protocol, and communication and client relations skills. Instructor consent required. Prerequisite: MUS-285

MUS-302 Studio Production in Mass Communication 3.00

This course addresses the fundamentals of architectural acoustics and introduces students to the most current types and usages of multimedia as they relate to audio production. Emphasis is placed on the application of recording techniques and equipment in varied modes of communication such as wired and wireless applications, and audio and video conferencing. Students learn to adapt to a variety of acoustical settings and venues, and demonstrate intuitive and creative use of professional skills and tools used in the entertainment, educational, and professional world. Prerequisite: MUS-285

MUS-316 Audio Engineering Electronics 2.00

This course presents basic electronic principles such as voltage, resistance (impedance), DC and AC current, and power. Audio signals in series, parallel, and complex circuits will be measured and compared. Circuits that create, amplify, attenuate, and distribute audio signals will be explored in the context of live sound production. Students will have an opportunity to improve soldering and instrumentation skills.

MUS-317 Audio Engineering Electronics II 3.00

This lab/lecture course will prepare students to maintain, setup and make routine repairs to electric amplifiers and other audio system components. Students will construct a project utilizing skills needed in the Audio Engineering field. Basic understanding of electronics and audio engineering terminology is recommended. Prerequisite: MUS-316

MUS-336 Advanced Audio Engineering Electronics 2.00

This course is a continuation of MUS 316. Students learn how to maintain, setup and make routine repairs to electric amplifiers and other audio system components. Students work on individual projects using skills needed in the Audio Engineering Field. A basic understanding of electronics and audio engineering terminology is recommended. Prerequisite: MUS-316

MUS-420 Audio Seminar I 1.00

This course requires students to attend specific venues in order to observe and learn about the world of audio, studio productions, live events, current music technologies and music production as they are implemented for music, film, television, and interactive media. Instructor consent required. Prerequisite: ELE-101

MUS-421 Audio Seminar II 1.00

This course requires students to attend specific venues in order to observe and learn about the world of audio, studio productions, live events, current music technologies and music production as they are implemented for music, film, television, and interactive media. Instructor consent required.

MUS-431 Audio Practicum I 1.00

This course will allow students to apply learned skills by producing audio projects under faculty supervision. Prerequisite: MUS-285

MUS-432 Audio Practicum II 1.00

This course will allow students to apply learned skills by producing more challenging video projects with less faculty supervision while maintaining high quality outcomes. Prerequisite: MUS-431

MUS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MUS-932 Internship 3.00

This course provides on-the-job experience on campus or in the industry, giving the student experience and practical application of the competencies learned in the degree program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor. Students meet once a week to discuss their experiences and ongoing progress with their fellow class members, and to measure progress with the instructor.

MUS-947 Practicum 2.00

This course is designed to allow students to job shadow and/or work in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills gained in the program of study. This is a coordinated effort between the student, faculty members, and the work supervisor involving evaluations and assessment. Instructor permission required.

MUS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

NET-155 Introduction to Wireless Networks 3.00

This course provides a hands-on guide to planning, designing, installing and configuring wireless LANs that prepares students for the Certified Wireless Network Administrator (CWNA) certification. The text used offers in-depth coverage of wireless networks with extensive step-by-step coverage of IEEE 802.11b/a/g/pre-n implementation, design, security, and troubleshooting. Material is reinforced with

hands-on projects at the end of each chapter from two of the principle wireless LAN vendors, Cisco and Linksys. Prerequisite: NET-161, NET-162

NET-161 IT Essentials I: PC Hardware and Software 4.00

This course covers the fundamentals of computer hardware and software. Fundamentals covered include computer technology, networking, security and communication skills. This is a combined lecture and lab course designed for students seeking career-orientated, entry-level hardware and software positions. This course also prepares students for the Comptia A+ certification exams.

NET-162 IT Essentials II: Advanced PC Hardware and Software 3.00

This course covers advanced computer hardware and software concepts and builds on the fundamental skills covered in NET 161 IT Essentials I with more comprehensive labs and troubleshooting scenarios. It is a combined lecture and lab course designed for students seeking career-orientated, entry-level hardware and software positions. This course also prepares students for the Comptia A+ certification exams. Prerequisite: NET-161

NET-170 Configuring Windows 4.00

This course provides students with the skills necessary to master configuration and support for Windows 8 computers, devices, users and associated network and security resources. Emphasis is placed on the client-side of networking.

NET-171 Installing & Configuring Windows Server 4.00

This course is the first in a series of three that provides students with the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure into an existing enterprise environment. This course focuses on mastery of core services such as Active Directory and networking services. Prerequisite: NET-170

NET-172 Administering Windows Server 4.00

This course is the second in a series of three that teaches the fundamentals of deploying, supporting, and administering current Microsoft Windows systems. It is also designed to support individuals preparing to take the current Administering Windows Server exam. Prerequisite: NET-171

NET-173 Configuring Advanced Windows Server 4.00

This course is the third in a series that provides the fundamentals of administering Windows Server. It is also designed to support individuals preparing to take the Configuring Advanced Windows Server Services exam. Prerequisite: NET-172

NET-216 Cisco CCNA Security 3.00

This course equips students with the knowledge and skills needed to prepare for entry-level security specialists careers. This course is a hands-on, career-orientated e-learning solution that emphasizes practical experience. It is a blended

curriculum with both online and classroom learning. CCNA Security aims to develop an in-depth understanding of network security principles as well as the tools and configurations required to secure a network. Prerequisite: NET-220

NET-217 CCNA Exploration Network Fundamentals 3.00

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Network Fundamentals is the first of 4 semester courses necessary for CCNA (Cisco Certification Network Association) certification. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. It introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Labs use a "model Internet" to allow students to analyze real data without affecting production networks. Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment. At the end of the course, students build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Prerequisite: NET-161

NET-218 CCNA Exploring Routing Concepts 3.00

This CCNA (Cisco Certification Network Association) course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. The students are prepared through a basic procedural lab and then presented with basic configuration, implementation, and troubleshooting labs. Packet Tracer (PT) activities reinforce new concepts, and allow students to model and analyze routing processes that may be difficult to visualize or understand. Prerequisite: NET-217

NET-219 CCNA Exploration Switching and Wireless 3.00

This CCNA (Cisco Certification Network Association) course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. The course explains how to configure a switch for basic functionality and how to implement Virtual LANS, VTP, and Inter-VLAN routing in a converged network. The different implementations of Spanning Tree Protocol in a converged network are presented, and students develop the knowledge and skills necessary to implement a WLAN in a small-to-medium network. Prerequisite: NET-218

NET-220 CCNA Exploration Accessing the WAN 3.00

This course presents the WAN technologies and network services required by converged applications in enterprise networks. The course uses the Cisco Network Architecture to introduce integrated network services and explains how to select the appropriate devices and technologies to meet network requirements. Students learn how to implement and configure common data link protocols and how to apply WAN security concepts, principles of traffic, access control, and addressing services. Finally, students learn how to detect, troubleshoot, and correct common enterprise network implementation issues. After successfully completing the four CCNA Exploration courses, students are qualified to take the Cisco Certified Network Associate Exam (CCNA). Prerequisite: NET-217, NET-218, NET-219

NET-351 Python for Cyber Security Professionals 3.00

This course introduces the student to the Python language. Students will learn to automate tools, create simple programs, and graphical user interfaces. Topics include Python language components, control flow constructs, strings, I/O, collections, classes, modules, and regular expressions.

NET-423 Securing a Linux Environment I 3.00

This course introduces basic Unix/Linux commands and usage. It focuses on securely installing and operating in a command/shell environment in Linux. Students learn how to secure the base operating system, secure connections to the hosts and test the overall security of the Linux box. Prerequisite: NET-162, NET-424

NET-424 Securing a Linux Environment II 3.00

This course takes the concepts and knowledge learned in Securing a Linux Environment I and applies them to common applications run on Unix/Linux operating systems. It focuses on identifying the many risks of running Linux hosts applications and methods to minimize those risks. Students learn how to test the overall security of these applications and apply proper security measures. Prerequisite: NET-423, NET-161

NET-478 Information Storage and Management 3.00

This course provides students with the background to learn how to manage advanced storage systems, protocols, and architectures, including Storage Area Networks (SAN), Network-Attached Storage (NAS), Fibre Channel Networks, Internet Protocol SANs (IPSAN), iSCSI, and Content-Addressable Storage (CAS). Prerequisite: NET-172, NET-220

NET-501 Basic Linux Operating System 3.00

This course provides the student with instruction and hands-on practice in the basics of operation, installation, and configuration of the Linux operating system and its file system. This is the first of two courses that provide a foundation for the student preparing for the Linux + professional certification exam. Prerequisite: NET-162

NET-502 Advanced Linux Operating System 3.00

This course will provide the student with instruction and hands-on practice in the basics of Linux system administration in a network environment. The laboratory systems will enable students to practice with multiple Linux systems in a virtual environment. This is the second of two courses that will help the student prepare for the Linux + professional certification exam. Prerequisite: NET-501

NET-536 Microsoft Exchange Server 2007 MCTS 3.00

This course provides students with instruction and hands-on practice in the skills required to install and configure Microsoft's current Exchange Server. The laboratory systems enable students to learn by doing in live virtual environments. This course helps prepare students for the current MCTS certification exam. Prerequisite: NET-171

NET-612 Fundamentals of Network Security 3.00

This course is a combined lab and lecture course designed to provide students with a fundamental understanding of network security principles and implementation. Students learn the technologies and principles involved in creating a secure computer networking environment. Students learn about authentication, types of attacks and malicious code, threats and countermeasures for e-mail, web applications, remote access, file and print services, intrusion detection systems, firewalls, physical security concepts, security policies, disaster recovery, and computer forensics. Students have a variety of hands-on and case project assignments that reinforce the concepts read in each chapter. Prerequisite: NET-161, NET-162

NET-616 VMware VCP 3.00

This course equips students with the knowledge, skills, and abilities to build and run a VMware vSphere environment. It focuses on the installation and configuration of VMware ESX/ESXi hosts and VMware vCenter Server and on the management of ESX/ESXi hosts and virtual machines with vCenter Server. The course prepares students to achieve the status of VMware Certified Professional. The course is based on VMware's VCP certification and as such when VMware changes their VCP certification this course will change to reflect the most current certification requirements. Prerequisite: NET-219, NET-172

NET-617 Implementing Security Policies and Procedures 3.00

This course is based on the International Organization of Standardization's Code of Practice for Information Security Management. It uses real world examples and cases to instruct the student on creating a working security policy, maintain regulatory compliance, and protect information and information systems.

Prerequisite: NET-612

NET-624 Offensive Security I 3.00

This course enables students to use penetration-testing tools and techniques that ethical hackers and security testers utilize to protect computer networks. Skills and techniques include foot printing, social engineering, port scanning, enumeration, and cryptography. The course incorporates a lab component in which students practice skills designed to secure network connections and prevent attacks.

Prerequisite: NET-423

NET-625 Offensive Security II 3.00

This course enables students to use penetration-testing tools and techniques that ethical hackers and security testers utilize to protect computer networks. Skills and techniques include securing webserver, web application and databases.

Students also learn techniques to protect Macintosh, Linux and mobile devices.

The course incorporates a lab component in which students practice skills designed to secure operating systems and mobile devices and prevent attacks.

Prerequisite: NET-624, Corequisite: NET-846

NET-633 Computer Forensics Fundamentals 3.00

This course provides a complete overview of computer forensics from information security issues to crime scene investigation, seizure of data, determining the "fingerprints" of the crime, and tracking down the criminals. The course focuses on the process and procedural aspects of investigation and aid students in the use of the tools and the implementation of the procedures that are demonstrated in the Forensics and Investigation course. Prerequisite: NET-612

NET-636 Digital Crime & Computer Law 3.00

This course focuses on various types of computer crimes and threats to private networks. This course will entail discussions of general crimes such as Denial of Service attacks, web site defacement, digital espionage, cyber crimes involving minors, and fraud, as well as specific laws, statutes and cases.

NET-638 Network Firewalls and VPNs 3.00

This course focuses on the installation, setup and configuration of current firewall and VPN appliances along with the management tools. The course focuses on how to securely setup and configure a firewall and VPN network and network defenses. Prerequisite: NET-218

NET-730 Computer Forensics and Investigations 3.00

This course is a combined lecture and lab class that provides students with a comprehensive understanding of computer forensics, investigation tools and techniques. Students learn what computer forensics and investigation is as a profession and they gain an understanding of the overall investigative process as well as how to set up an investigator's office and laboratory. Students learn about the computer forensic hardware and software tools available. Students also learn the importance of digital evidence controls and how to process crime and incident scenes as well as be introduced to data acquisition, computer forensic analysis, e-mail investigations, and image file recovery. The course provides a range of laboratory and hands-on assignments for students. Prerequisite: NET-161, NET-162

NET-846 Cyber Crime Projects 3.00

This course enables students to use the complete set of skills they have learned in the courses that comprise the Cyber Security and Digital Crime program. By completing a computer forensics project and secure network/VPN project, students are able to demonstrate the ability to create and implement policies and procedures, monitor an active network, check vulnerabilities to attacks, assess and react to incoming attacks, conduct a digital investigation, create reports and defend their findings. Prerequisite: NET-730, Corequisite: NET-625

NET-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

NET-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PEA-138 Lifeguard Training I 1.00

This course teaches the duties and responsibilities of lifeguards to prevent and respond to aquatic emergencies and procedures in a professional manner. Participants may become certified as an American Red Cross Lifeguard upon successful completion of the American Red Cross Lifeguard exam. This course includes training in CPR, First Aid, Oxygen Administration, and Preventing Disease Transmission. Participants must be able to perform Red Cross skill standards.

PEA-148 Physical Fitness I 2.00

This course builds fitness knowledge and fitness level through individualized program on exercise machines. An exercise program will be developed to meet

each student's need and the fitness level will be monitored throughout the course.

PEA-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PEA-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PEC-110 Coaching Ethics, Techniques and Theory 1.00

This course studies the theory and techniques of coaching the interscholastic athlete and the interscholastic team, as well as the related responsibilities, duties, and problems. This is one of four courses leading to the coaching authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activity. Completion of this course after July 2000 fulfills the Iowa State coaching endorsement ethics requirement.

PEC-115 Athletic Development and Human Growth 1.00

This course introduces concepts in sports psychology for elementary school age children and adolescents. Physical, psychological, and social growth is examined as they relate to physical activity and competitive athletics. This is one of four courses leading to the coaching authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activity.

PEC-120 Body Structure and Function 1.00

This course is an introduction to the physiological processes and anatomical features of the human body which are related to and affected by physical activity and training. This is one of the four courses leading to the coaching authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activities.

PEC-126 Athletic Injury Prevention 2.00

This course introduces conditioning programs and training methods that tend to prevent athletic injuries. This course provides basic skills in injury procedures, while providing practical experience in taping techniques. This is one of four courses leading to the coaching authorization issued by the Iowa Department of

Education as a head coach or assistant coach of any interscholastic athletic activity.

PEC-170 Sports Officiating: Basketball 1.00

This course teaches methods, material and techniques of officiating basketball as a team sport including rules of the game and the court mechanics. It also provides opportunity to become a licensed official in Iowa for this sport.

PEC-173 Sports Officiating: Softball, Baseball 1.00

This course teaches methods, material and techniques of officiating softball and baseball as a team sport including rules of the game and court mechanics. This course provides opportunity to become a licensed official in Iowa for this sport.

PEC-174 Sports Officiating: Soccer 1.00

This course teaches methods, material and techniques of officiating soccer as a team sport including rules of the game and court mechanics. This course provides opportunity to become a licensed official in Iowa for this sport.

PEC-176 Lacrosse Officiating 1.00

This course teaches methods, material and techniques of officiating lacrosse as a team sport including rules of the game and field mechanics. This course provides opportunity to become a licensed official in Iowa for this sport.

PEC-177 Sports Officiating: Football 1.00

This course teaches methods, material and techniques of officiating football as a team sport including rules of the game and field mechanics. This course provides opportunity to become a licensed official in Iowa for this sport.

PEC-178 Volleyball Officiating 1.00

This course teaches methods, material and techniques of officiating volleyball as a team sport including rules of the game and court mechanics. This course provides opportunity to become a licensed official in Iowa for this sport.

PEC-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PEC-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

- PET-104 Basic Athletic Training 2.00**
This course is the first in a series of Athletic Training courses that introduce basic principles and techniques in the profession of Athletic Training. This course is an introduction to athletic injury prevention, recognition, evaluation, care, rehabilitation, and basic wrapping and taping techniques. This course is appropriate for athletic trainers as well as coaches, personal trainers, and physical educators.
- PET-140 Athletic Training Practicum I 1.00**
This course is designed to provide the student with the opportunity to observe, learn, and practice basic competencies and proficiencies within the profession of Athletic Training as set by the National Athletic Trainers Association (NATA). Students will be under the direct supervision of a clinical instructor at all times and will be able to demonstrate the knowledge and clinical application of basic skills. Prerequisite: PET-104
- PET-150 Athletic Training Practicum II 1.00**
This course is designed to provide the student with the opportunity to observe, learn and practice intermediate competencies and proficiencies within the profession of Athletic Training as set by the National Athletic Trainers Association (NATA). Students will be under the direct supervision of a clinical instructor at all times and will be able to demonstrate the knowledge and clinical application of intermediate skills. This course builds on skills acquired in Athletic Training Practicum I. Prerequisite: PET-140, PET-400
- PET-171 Athletic Training Practicum III 1.00**
This course is designed to provide the student with the opportunity to observe, learn, and practice advanced competencies and proficiencies within the profession of Athletic Training as set by the National Athletic Trainers Association (NATA). Students will be under the direct supervision of a clinical instructor at all times and will be able to demonstrate the knowledge and clinical application of advanced skills. This course builds on skills acquired in Athletic Training Practicum I and II. Prerequisite: PET-150
- PET-400 Prevention & Care in Athletic Training 4.00**
This course introduces the domains of prevention, assessment, treatment, and rehabilitation of acute and chronic injuries. Students are introduced to entry-level skills and concepts within the profession of Athletic Training, including basic taping and wrapping techniques of the upper and lower extremity. This intermediate level course is appropriate for Athletic Trainers, as well as physical education teachers, athletic coaches, and fitness instructors. Prerequisite: PET-104
- PHI-101 Introduction to Philosophy 3.00**

This course introduces a broad spectrum of philosophical questions and perspectives, with an emphasis on the systematic questioning of basic assumptions about reality, knowledge, meaning, and values.

PHI-105 Introduction to Ethics 3.00

This course introduces fundamental theories of moral behavior and examines important concepts and arguments used in moral reasoning, and applies ethical theories to contemporary personal and social issues.

PHI-111 Basic Reasoning 3.00

This course introduces the art of thinking as applied to critical evaluation of information, the construction and evaluation of deductive and inductive arguments, and the rational and persuasive defense of ideas.

PHI-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHI-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHR-105 Introduction to Pharmacy Technology 3.00

This course is designed to provide the student with a working knowledge about community and institutional pharmacy practice. This course teaches pharmacy technician students information, techniques, and procedures needed to assist the pharmacist in delivery of pharmaceutical products and services. Students taking this course should have basic reading comprehension skills and high school algebra.

PHR-120 Pharmacology for Pharmacy Technician 3.00

This course introduces pharmacy technician students to the general principles of pharmacology. Drugs are discussed in the context of drug classes, mechanics of action, disease types, and body systems. The goal is to provide pharmacy technicians with sufficient background information so that they will be able to play a key role in avoiding dispensing errors. Prerequisite: PHR-105

PHR-135 Pharmacy Calculations and Compounding 3.00

This course will include reading, interpreting, and solving calculation problems encountered in the preparation and distribution of medications. Specific

compounding topics include medication and parenteral administration; facilities, equipment, and supplies utilized in admixture preparation; techniques utilized in parenteral product compounding; introduction to parenteral medication incompatibilities; and quality assurance.

PHR-140 Pharmacy Law 1.00

This course reviews the laws affecting pharmacy practice. Course highlights include the Food, Drug and Cosmetic Act and various federal and state controlled substance acts.

PHR-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHR-932 Internship 3.00

This course provides on-the-job experience on campus or in the industry, giving the student experience and practical application of the competencies learned in the degree program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor. Prerequisite: PHR-947

PHR-941 Practicum 1.00 - 4.00

This course provides the student with the opportunity to learn the clinical skills required to function as a Pharmacy Technician. Students will also have the opportunity to demonstrate clinical applications of skills and to assume the role of the Pharmacy Technician. They will then apply and practice these skills in the institutional and/or retail pharmacy setting under the direct supervision of a pharmacist.

PHR-947 Practicum 1.00 - 4.00

This course provides the student with the opportunity to learn the clinical skills required to function as a Pharmacy Technician. Students will also have the opportunity to demonstrate clinical applications of skills and to assume the role of the Pharmacy Technician. They will then apply and practice these skills in the institutional and/or retail pharmacy setting under the direct supervision of a pharmacist. Prerequisite: PHR-105, Corequisite: PHR-120

PHR-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course

already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHS-120 Exploring Physical Science 4.00

A combined lecture and lab class. Topics covered come from physics, astronomy, chemistry, geology and meteorology. There are no prerequisites. The course is intended to meet the science requirement for non-science majors including elementary education majors.

PHS-142 Principles of Astronomy 3.00

This course is a physical science course which explores the mysteries of the universe. Through scientific reason, the course will examine the following: the history of astronomy, the planets, stars, nebulae, galaxies, the creation and fate of the universe and our place in it. This course includes amateur observation techniques.

PHS-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHS-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHT-103 Print Presentation Techniques 3.00

This course emphasizes fundamental print finishing methods used in professional photography. Students experience corrective artwork and finishing methods used to enhance a photograph's overall presentation. Instructor consent is required.

PHT-104 Introduction to Lighting 3.00

This course focuses on the elements of lighting, exposure, shadows, artificial and natural lighting as it pertains to photography. Students learn to use a variety of lighting techniques to enhance studio portrait photography. Corequisite: ART-184, PHT-135

PHT-107 Digital Darkroom 2.00

This course is designed to provide students with a working understanding of electronic images, digital software, and digital workflow. Emphasis is on how to handle image workflow to produce a professional photographic print from digital

files and finishing methods used to enhance a photograph's overall appearance.
Corequisite: PHT-135

PHT-135 Digital Fundamentals 3.00

This course provides students the opportunity to learn basic digital photography. Topics include the use and maintenance of digital cameras, proper exposure and image control. The additional use of optional camera accessories to enhance the image quality are explained. Concepts of digital asset management, digital workflow and image manipulation are explored. Corequisite: ART-184

PHT-136 Studio Management and Operations 2.00

This course presents an overview of the business of photography. Day-to-day operations will be studied in detail. Principles of bookkeeping and pricing will be explored. This course will help photographers just starting their business as well as established businesses.

PHT-138 Photography Trends 3.00

This course explores new technological developments and aesthetic trends, in addition to equipment and software in the photographic field of study.

PHT-202 Basic Portraiture 3.00

This course presents an overview of the professional portrait field. Instruction includes studio equipment and basic lighting patterns utilizing natural light and studio lighting. Traditional posing and essential elements that ensure client satisfaction are emphasized. Prerequisite: PHT-135, PHT-104

PHT-204 Basic Commercial Photography 3.00

This course presents an overview of a profession in commercial still photography. Photographic techniques, professional expectations, types of assignments, working conditions, types of photography tools used, studio procedures, and equipment requirements will be discussed. Simple commercial techniques will be applied in realistic assignments. Prerequisite: PHT-135, PHT-104

PHT-207 Advanced Digital Darkroom 3.00

This course is designed to expand students' understanding of digital software, digital manipulation, and digital workflow. Advanced techniques for manipulation and conversions are taught. Asset management procedures are stressed. Instructor consent is required.

PHT-208 Basic Photojournalism 3.00

This combined lecture/lab course focuses on photojournalism as a profession and leads to publishable photographs through practical assignments. Students investigate techniques and working styles of distinguished photojournalists. Prerequisite: PHT-135

- PHT-214 Advanced Lighting 3.00**
This course builds on the introductory lighting class. Exploration of the elements of lighting, exposure, shadows, artificial and natural lighting as it pertains to photography are continued. Students learn to use a variety of lighting techniques to enhance their photography. A portfolio presentation is required upon completion. Instructor consent required. Prerequisite: PHT-104, PHT-135, PHT-204
- PHT-230 Advanced Portraiture 3.00**
This course is designed to assist the student in learning advanced portrait techniques and the business procedures needed to start and maintain a portrait studio. The course creates an awareness of the work environment the student will enter as an assistant. This course builds on the skills learned in Basic Portraiture and will include various portrait assignments in the studio, outdoors and on location. A portfolio presentation is required upon completion of the class. Instructor permission required. Prerequisite: PHT-202
- PHT-236 Advanced Commercial Photography 3.00**
Advanced commercial photography builds on the skills learned in Basic Commercial Photography. Students study studio and location commercial photography techniques with an emphasis on advertising photography. Studio operation procedures related to pricing, work flow, and scheduling are presented. A portfolio presentation is required upon completion. Instructor consent required. Prerequisite: PHT-204
- PHT-237 History of Photography 2.00**
This course introduces students to the history of the photographic profession and its ascent to its present form. The people, processes, and their contribution to society throughout photography's history is explored.
- PHT-239 Advanced Photojournalism 3.00**
This course prepares students for future employment with newspapers and/or magazines. Students learn layout, cutline writing and photo editing work. Portfolio presentation is required upon completion. Instructor permission is required. Prerequisite: PHT-208
- PHT-243 Wedding Photography 3.00**
This course presents an overview of the professional wedding field. The lessons will include instruction on equipment, lighting and posing utilized for photographing a wedding. The class also covers marketing, sales techniques and the day-to-day business procedures needed by the photographer to be successful in the wedding field. Instructor permission required. Prerequisite: PHT-135, PHT-104
- PHT-298 Photography Capstone Experience 2.00**

This course is designed to provide students with the opportunity to apply the skills and knowledge from prior learning in the Professional Photography program. Students explore and analyze topics within the discipline of professional photography to meet their individually defined goals with approval of the instructor. They also assemble and present a body of work in a portfolio of images appropriate to their professional, educational or personal goals. The course concludes with a public exhibition of the students' work. Instructor consent required.

PHT-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHT-947 Photography Practicum 1.00

This course is designed to allow the student to work, generally on campus, in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills from prior learning. This will be a coordinated effort between the student, faculty member(s), and the work supervisor involving evaluations and assessment. This course may be repeated for credit. Prerequisite: Instructor consent required.

PHT-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHY-162 College Physics I 4.00

This is a combined lecture and lab course focusing on the forces acting on bodies and their relationship to friction, motion, momentum, work, and energy in the field of mechanics; fluid mechanics, wave motion, sound, heat, and thermodynamics. Corequisite: MAT-121

PHY-172 College Physics II 4.00

This course is a continuation of College Physics I with both lecture and lab focusing on optics, electricity and magnetism, quantum physics, relativity, and nuclear physics. Prerequisite: PHY-162

PHY-212 Classical Physics I 5.00

This is a lecture and lab course covering vectors, kinematics, Newton's laws, linear and angular momentum, gravitation, energy, fluid mechanics, heat, and thermodynamics. Corequisite: MAT-211

- PHY-222 Classical Physics II** 5.00
A continuation of Classical Physics I, this is a lecture and lab course covering oscillations, wave motion, sound, electricity, magnetism, and optics. Prerequisite: PHY-212, Corequisite: MAT-217
- PHY-917 Experimental Course** 1.00 - 4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
- PHY-949 Special Topics** 1.00 - 4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
- PLU-170 Residential Piping** 3.00
This course identifies the various types of pipe and fittings used in residential plumbing systems. Students will have hands-on experience in the rough-in and finish stages of plumbing installation. Also emphasized is the extension of the sewer and water supply piping inside the building. Corequisite: PLU-171 , PLU-172 , and BMA-175
- PLU-171 Residential Code** 2.00
This course provides information on how to read and understand the required codes that govern plumbing procedures in residential dwellings. Students will gain experience using the code books to identify the required procedures. Corequisite: PLU-170 , PLU-172 , and BMA-175
- PLU-172 Residential Fixtures** 2.00
This course provides information needed to install fixtures, faucets, and appliances. Corequisite: PLU-170 , PLU-171 , and BMA-175
- PLU-180 Commercial Piping** 3.00
This course identifies the types of pipe and fittings used in commercial plumbing systems. Students will have hands-on experience in plumbing installation. Prerequisite: PLU-170 and CON-112, Corequisite: PLU-181 and PLU-182
- PLU-181 Commercial Code** 2.00
This course provides information on how to read and understand the required codes that govern plumbing procedures in commercial buildings. Students will gain experience using the code books to identify the required procedures. Prerequisite: PLU-171 and CON-112, Corequisite: PLU-180 and PLU-182

PLU-182 Commercial Fixtures 2.00

This course provides information needed to install commercial fixtures.

Prerequisite: PLU-172 and CON-112, Corequisite: PLU-180 and PLU-181

PLU-190 Plumbing Troubleshooting 2.00

This course introduces the basic troubleshooting skills that will be essential to repair drains, waste and vent systems, water supplies, and natural gas lines. Scenarios are provided to enable students to locate the symptoms and diagnose the right cause and work to repair the system at fault. Students are exposed to various methods of troubleshooting on a variety of plumbing systems. Prerequisite: PLU-170 , PLU-172 , CON-112 , and BMA-175

PNN-624 Nursing I 9.00

A combined course that includes: classroom, lab, and clinical. Nursing I provides an overview of the nursing program at Western Iowa Tech Community College and the role of the individual as a student, introducing the student to the practical nurse's role in the health care environment. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Students are introduced to the principles of communication, elements of the nursing process, and roles of caregiver, manager, and member of profession. Emphasis is placed on predictable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and incorporated throughout the course. Prerequisites for hybrid online section: proof that all required support courses for the PN Program have been completed. Corequisite: SDV 108 The College Experience BIO 151 Nutrition BIO 169 Human Anatomy and Physiology IA w/lab PSY 111 Introduction to Psychology. Advisor permission required.

PNN-625 Nursing II 9.00

A combined course that includes: classroom, lab, clinical, and preceptorship. Nursing II prepares the student to safely manage the care of clients throughout the life span by assuming the practical nurse roles of caregiver, manager, and member of profession. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Emphasis is placed on predictable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and incorporated throughout the course. Clinical preceptorship provides an opportunity for students to mentor with a licensed practical nurse (LPN). Students will practice clinical and leadership skills necessary to successfully transition into the role of an entry-level LPN. Focus is placed on the enhancement of leadership and collaboration skills, organization, supervision, delegation, prioritization, and management of multiple clients in a long term care setting. Advisor permission required. Prerequisite: PNN-624, BIO-151, BIO-169

PNN-805 Practical Nursing Principles and Concept Review 2.00

This course provides a review of nursing care for clients throughout the life span within the scope of the practical nurse. This course incorporates collaborative and interactive review and strategies to prepare for the NCLEX-PN examination.

PNN-853 IV Therapy: Concepts and Techniques 3.00

This course is designed to provide the theoretical concepts and skills associated with intravenous therapy to LPNs working in a licensed hospital, licensed skilled nursing facility or a certified end-stage renal dialysis unit. The areas of discussion include anatomy and physiology, infection control, methods of infusion, care and maintenance, necessary equipment and assembly, venipuncture skills, and potential complications. Training will consist of a combination of theory, lab, and practical experience. LPNs must hold an unrestricted Iowa license and have a documented 1040 hours of practice as an LPN to be eligible to take the class. Participants must also score 90% or better on the state LPN IV math pre-test. Successful completion of the classroom and clinical components by the licensed practical nurse (LPN) meets the Iowa Board of Nursing requirements for the LPN to perform procedures related to the expanded scope of practice for intravenous therapy. The course is also appropriate as an intravenous therapy refresher course for registered nurses and allied health professionals.

PNN-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PNN-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

POL-111 American National Government 3.00

This course is an introduction to the American system of government, including the U.S. Constitution. Basic philosophies, general principles of federalism, civil liberties, public opinion, political parties and interest groups, the electoral process, and the structure and function of national government will be covered.

POL-112 American State and Local Government 3.00

An analysis of American politics and government at the state, local, and municipal level. Historical developments and operations, the political economy,

and cross-comparisons of various state and local governments, with special emphasis on Iowa, will be covered.

POL-121 International Relations 3.00

This Course is an introduction to the study of foreign policies, diplomacy, economics, security, and organizations. Current problems in international relations will be addressed.

POL-125 Comparative Government and Politics 3.00

This course is a comparison of the governments and politics of major world powers. Specific attention will be paid to political culture, parties, electoral process, and executive, legislative, and judicial systems.

POL-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

POL-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PRL-101 Paralegal Studies Orientation 3.00

This course will introduce students to the paralegal profession and the basic ethical principles which control those working in the law. An examination of the legal system, with emphasis on Iowa court structure, is included. Students will be introduced to the law library, become familiar with sources of legal authority, legal analysis and writing as well as the specific functions and duties of the paralegal within the law. Prerequisite: Required CPT score.

PRL-103 Introduction to Law 3.00

This course will introduce students to the paralegal profession. An examination of the legal system, with emphasis on Iowa court structure, is included. Students will be introduced to the law library, become familiar with sources of legal authority, legal analysis and writing as well as the specific functions and duties of the paralegal within the law. Students will build critical thinking skills pertaining to legal studies while receiving an overview of various aspects of law.

PRL-108 Legal Procedures and Processes 3.00

This course expands upon Office Procedures by preparing the student for the law office setting. This course will allow the student to build upon existing skills and

motions, managing the case file, attending to service of process, and assisting in the courtroom. Prerequisite: PRL-101

PRL-161 Family Law 3.00

This course emphasizes substantive law and provides an overview of common procedures related to domestic relations law, including the formation and dissolution of marriage, marital property, child custody and support and related matters. In addition, students will receive instruction regarding skills needed in client interviewing, organization of financial records, answering of interrogatories and request for production of documents and ethical guidelines to which a paralegal should adhere. Prerequisite: PRL-101

PRL-164 Legal Applications and Practices 3.00

This course provides an intensive application of various aspects of law which will prepare the paralegal student for employment. Students will learn about residential real estate transactions, estate planning and probate, debtor/creditor, landlord/tenant and Uniform Commercial Code forms. This course will give students the opportunity for hands-on experience and training by accessing and preparing legal documents. This course will increase skills in process writing, writing fundamentals, and proofreading. Prerequisite: PRL-108, PRL-112

PRL-191 Criminal Procedure 3.00

This course examines the fundamentals of substantive criminal law and procedures unique to criminal cases, including an examination of the practical aspects of prosecution and defense, the constitutional rights of the accused, plea bargaining and the unique aspects of a criminal trial. It also examines criminal law concepts and various types of crimes. Students learn about procedure, including, but not limited to, the rights of crime victims, the law of arrest, interrogation, confessions and constitutional rights as they pertain to a criminal defendant, sanctions and sentencing. Prerequisite: PRL-101, PRL-281

PRL-281 Legal Ethics 2.00

This course covers legal ethics with an emphasis on how the rules affect legal assistants. Students learn about the regulation of the legal profession including the rules of conduct that govern both attorneys and legal assistants. Topics include the meaning and importance of the unauthorized practice of law, the attorney-client privilege and its related work product doctrine, confidentiality, the rules governing conflicts of interest and other topics ethical in nature. Law office management is also addressed. Prerequisite: PRL-101

PRL-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the

catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PRL-932 Internship 3.00

This second year Capstone course integrates the application of all course work in the paralegal program. Students use critical thinking and analytical skills developed throughout the program to analyze facts, synthesize information and perform legal work under the direction and supervision of an attorney (or supervisor) and faculty advisor. Students may assist in preparing exhibits and evidence, obtaining information from clients, preparing for pretrial conferences or case settlement meetings, drafting contracts or other agreements, performing legal research and creating internal and external legal memoranda. Prerequisite: Successful completion of required program courses for first and second year and instructor's consent, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor.

PRL-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PSY-102 Human and Work Relations 3.00

This course introduces students to the application of psychological theory and practice to the work place. The course includes a variety of human relations skills and diversity with an emphasis on practical application. Attention is given to workforce dynamics with a focus on conflict resolution, leadership skills, and interpersonal communication, as they relate to family, work and day-to-day experiences.

PSY-111 Introduction to Psychology 3.00

This course introduces students to the scientific study of mental processes and behavior with emphasis on the nervous system, learning and memory, cognition, sensation and perception, motivation and emotion, personality, intelligence, stress, psychological disorders and therapy, and social influence. This course explains the roles of theory and empirical evidence in describing, and predicting behavior. Students apply critical thinking in relation to research methods and ethics in the field of psychology.

PSY-121 Developmental Psychology 3.00

This course examines the process of human development, covering the life span of the individual. It includes integration of the basic concepts and principles of physical, cognitive, social, and psychosocial development. Topic areas include:

genetics, prenatal development, infancy, childhood, adolescence, adulthood, and death. Prerequisite: PSY-111

PSY-171 Health Psychology 3.00

This course addresses information about psychological aspects of illness, hospitalization and lifestyle choices as they affect health. The course addresses such topics as the effects of stress on illness, lifestyle choices, how health services are used and misused, the patient-practitioner's relationship, and the emotional adjustment to chronic illness and hospitalization. This course may be used as a supplemental course for health care students, as well as continuing education units (CEUs) for health care professionals currently working in the field. Prerequisite: PSY-111

PSY-211 Psychology of Adjustment 3.00

This course is the study of the adjusting/coping behavior of the individual in various aspects of life situations. Prerequisite: PSY-111

PSY-222 Child Psychology 3.00

This course is design for students to analyze psychological development of the child in relation to the biological, physical, and sociological antecedent conditions from prenatal to adolescent stages. Emphasis on contemporary theories of child psychology, including: physical growth and development, personality and social learning, cognition and perception, and language development. Prerequisite: PSY-111

PSY-224 Adolescent Psychology 3.00

This course explores the rapid physical, social, emotional, and cognitive changes of adolescents. Students distinguish myths about adolescence from research findings and examine the importance of cultural and historical factors in this crucial transition from childhood to adulthood. Prerequisite: PSY-111

PSY-241 Abnormal Psychology 3.00

This course will introduce student to theories of psychopathology and behavioral changes associated with abnormal behavior. Emphasis is on ethical issues of diagnosis and treatment, and major diagnostic categories such as schizophrenia, organic brain disorders, and personality disorders. Prerequisite: PSY-111

PSY-251 Social Psychology 3.00

The course studies interpersonal relations, social attitudes, group dynamics, inter-group relations, class and cultural influences in a psychological context. Prerequisite: PSY-111

PSY-261 Human Sexuality 3.00

Human Sexuality focuses on normal sexual development, human sexual responses, and common sexual problems. It provides factual information on human sexuality and raises practical questions about human sexual behavior. It also helps students examine and evaluate their views and values concerning sexual behavior. Prerequisite: PSY-111

PSY-295 Co-occurring and Addictive Disorders 3.00

This course considers prevention topics, such as harm reduction, the war on drugs and legalization. Practical content includes assessment, intervention methods and treatment outcome evaluation with an emphasis on the empirical literature. A wide variety of clinical methods and issues are reviewed and evaluated. Examples include: the validity of self-reports; motivational interventions; relapse prevention; tolerance; physical dependence; self-help groups; natural recoveries (i.e., without formal treatment); and cost-effective and efficient approaches to treatment. Prerequisite: PSY-241

PSY-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PSY-932 Internship 1.00 - 4.00

This course provides on-the-job experience and practical application of the theories and concepts studied in Chemical Dependency/Co-Occurring counseling course work. It involves a coordinated effort between the student, Western Iowa Tech Community College faculty members and a work supervisor at the agency site. Students will be required to complete a minimum of 64 hours at an approved work site. Corequisite: PSY-241

PSY-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PTA-104 Introduction to Physical Therapy 1.00

This course is designed to give the student an overview of the profession of Physical Therapy. The basic concepts of the function of a Physical Therapist and a Physical Therapist Assistant as a member of the health care team will be examined and discussed. This is a hybrid course with live meetings and online assignments.

PTA-130 Activities of Daily Living 4.00

This course is a combined lecture and lab course. It introduces principles and techniques of client/patient handling and activities of daily living. It provides students with understanding of activities of daily living training including bed mobility, transfer, gait, locomotion, developmental activity, dressing, bathing, eating, and toileting. It includes assistive/adaptive devices and equipment training, body mechanics training, diagnosis measures, and basic clinic safety. Corequisite: HSC-170, HSC-114, PTA-104

PTA-170 Physical Therapy Science I 5.00

This course provides the physical therapist assistant student in introduction to assessment and measurement and documentation skills, (data collection), therapeutic exercise, patient interaction, pain perception, cultural diversity, confidentiality, joint replacements, orthopedic skills, athletic training, professional literature, and home health. Students participate in implementing a plan of care including discharge planning and home programs. Prerequisite: PTA-130, PTA-104, Corequisite: HSC-127, HSC-218

PTA-189 Physical Agents 3.00

This course involves didactic and clinical teaching in the areas of thermal agents and electrotherapy. It includes hydrotherapy and related procedures such as massage and wound care. Prerequisite: PTA-170, Corequisite: PTA-270, PTA-260, HSC-265

PTA-260 Management of Clinical Services 3.00

This course is designed to introduce the student to the principles of management and administration of physical therapy services. Cooperative learning will focus on levels of authority and responsibility, time management, supervisory process, performance evaluations, policies and procedures, fiscal considerations, and quality assurance. The course also includes service learning. Corequisite: PTA-270, PTA-189

PTA-270 Physical Therapy Science II 5.00

This course combines lecture and lab activities to provide the physical therapist assistant student a progression of Physical Therapy Science I in the specialized areas of neurological rehabilitation, pediatrics, orthotics/prosthetics, cardiopulmonary, wellness, work conditioning, burns, women's health, geriatrics, and professional literature. Prerequisite: PTA-170, HSC-127, Corequisite: PTA-189, PTA-260, HSC-265

PTA-441 PTA Clinical Affiliation I and Seminar 3.00

This course is the initial full-time clinical experience under the direct supervision of a physical therapist or physical therapist assistant at an affiliating physical therapy center. Following the clinical, students participate in a seminar. Prerequisite: PTA-270

REL-101 Survey of World Religions 3.00

This course explores the world view, doctrines, and practices of the following major religions: Tribal, Hindu, Buddhist, Confucian/Taoist, Jewish, Christian, Muslim, and New Age. It examines themes such as view of the world, views of God, condition of humankind, requirements for a moral life, etc.

REL-150 Introduction to the Bible 3.00

This course introduces the practice of the contextual method of reading a text, as applied to the biblical materials. It asks: What kind of material is this? Who wrote it? To whom were they writing in their own time? What were they trying to say to the people in that situation? The course is not devotional or applicational, but literary and historical.

REL-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

REL-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SDV-030 Basic College Skills 3.00

This course assists students in obtaining skills critical to reaching their career objectives. Topics include career development, memory development, text book reading, note-taking and test-taking strategies. Emphasis is placed on transferable life skills such as personal responsibility, goal setting, health, team/community building, employ-ability skills and interpersonal skills. Credit for this class does not apply to graduation requirements.

SDV-036 Executive Functioning Skills 3.00

This course is designed to provide students with executive functioning skills and a basic understanding of reasons for setting goals, why a paradigm shift in their thinking may need to occur, how study habits and life habits affect choices in their career, and why all these issues are focused on a better "you". Instructor permission required.

SDV-039 College Entrance and Placement Exam Prep 3.00

This course is designed as a preparatory class for college entrance and placement exams. Students gain an understanding of standard testing procedures and processes. Common test-taking vocabulary and skills that may

be addressed in common entrance and placement exams are emphasized. Students develop a personal test-taking skills profile to facilitate improved test taking strategies. This developmental course may be repeated. Prerequisite: ESI-046 , ESI-051 , ESI-056 , and ESI-061 or Instructor permission.

SDV-041 Academic Projects and Presentations 3.00

This course provides an integrated, hands-on approach to planning, developing, and presenting college presentations and projects. Utilizing a variety of formats, students work through the development process for oral presentations, group projects and other individualized assignments requiring more than a written report. Students may integrate course requirements from other courses to focus their work to relevant assignments or topics. Prerequisite: Completed ESI level III coursework or instructor consent.

SDV-043 Communicating Effectively in Western Societies 3.00

This course teaches principles of effective Western communication in one-to-one relationships and in small groups. It focuses on communication theory, listening, self-concept, language, perception, and nonverbal communication. Emphasis is placed on effective communication strategies for American academic settings for non-native English speakers. Recommendation: Students should achieve level III or higher ESL scores in Listening & Speaking to achieve maximum benefit of this course. Course may be repeated for credit. This course does not fulfill WITCC's general education requirements.

SDV-063 Fundamentals of Careers 3.00

This course integrates the basic knowledge of careers with human relations skills required for real-world success. It is designed to increase awareness and understanding of the challenges and responsibilities of being an employee. Focus is placed on attitudes, teamwork, and careers. Instructor permission is required. Prerequisite: SDV-066

SDV-066 Career Decisions 3.00

This course is designed to provide students with a foundation for creating career goals using the 16 career clusters as a guide. Features include college and career readiness activities covering writing, speaking, and listening as well as career ready practices. Instructor approval required.

SDV-108 The College Experience 1.00

This course introduces students to the College's expectations, environment, and resources so that students may become more competent participants in the learning process.

SDV-153 Pre-Employment Strategies 2.00

This course is designed to prepare students for a competitive job market. Elements include self-analysis of abilities and goals, job inquiry and research, resume and portfolio preparation, job application and follow-up letters, job application forms, interviewing techniques, and projecting into the future workplace. Document Formatting I or Keyboarding is suggested but not required.

SDV-208 The College Experience for International Students 1.00

This course introduces International students to WITCC's college expectations, environment, and resources so that student may become more competent participants in the learning process. Emphasis is placed on assessing resources to enhance International students' experiences and success while studying at WITCC.

SDV-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SDV-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SMM-101 Social Media Explored 3.00

This course explores the history and future of social media in relation to marketing, branding and community building. Course content includes discussion of audience engagement, political and social activism, media, advertising and marketing. Current social media tools are used within this course to enhance understanding of the course material.

SMM-107 Applied Social Marketing 3.00

This course provides students opportunities to implement the use of social media tools for digital marketing which serves as a convergence point between commerce and consumer interaction. Students study consumer behavior using digital analytics, social engagement, marketing strategies and case studies.
Prerequisite: SMM-101

SMM-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SMM-949 Special Topics **1.00 - 4.00**

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SOC-110 Introduction to Sociology **3.00**

This course is a survey of the fundamental concepts used in the study of human social interaction with emphasis on group aspects of social behavior. Subject areas include research methods, theory, culture and social structure, socialization, groups and formal organizations, deviance and social control, stratification, race and ethnicity (including whiteness), major social institutions, and social change.

SOC-115 Social Problems **3.00**

This course is a study of selected problems of modern society, primarily in the United States, their nature, development, social courses and alternative solutions. It includes such topic areas as racial and sexual discrimination, urban and rural problems, crime and delinquency, family and generational problems, health and medical care, social deviance, substance abuse and such global problems as population, world hunger and international conflict.

SOC-120 Marriage and Family **3.00**

This course examines the family as a basic institution. Special focus is given to the marital life cycle: courtship, dating, marriage, the childbearing years, parent-child relationships and marriage during the middle and older years. This course examines the implication of marital dissolution and the family, as they exist under modern social conditions. Focus is given to contemporary variations of the family commonly referred to as intimate relationships (co-habitation, hooking up and gay marriage). This course is a required component for USD, BCU and BVU Social Work transfer programs and the WITCC Addictions Counseling Associate of Arts degree.

SOC-160 Introduction to Social Work **3.00**

The conceptual and theoretical framework presented in this course provides students the tools to practice social work in a variety of settings. The format of this class provides a combination of classic theory, new research and applied experience.

SOC-180 Social Work Interactional Skills **3.00**

This course focuses on students gaining an understanding and beginning mastery of interpersonal and interactional helping skills utilized by social workers in practice. The organization of the course and the learning methods used focus on both didactic and experiential learning. The content of the course is taught

through lecture, discussion and interactional laboratory sessions in which the students learn through individual and group exercises, role play and activity experiences. This course is required for social work students transferring to USD and for WITCC's Addictions Counseling program.

SOC-200 Minority Group Relations 3.00

This course acquaints the student with the sociological approach to understanding issues facing diverse populations. This course provides insight into barriers faced by race and ethnic groups and ways in which these barriers are navigated. The study of race and ethnicity includes a comprehensive examination of whiteness as a race, and the privilege of whiteness nationally and globally. Issues of race and ethnicity are presented through a global lens, primarily through theories of Diasporas. Prior completion of SOC-110 Introduction to Sociology is recommended.

SOC-210 Men, Women and Society 3.00

This interdisciplinary course is designed for first or second year students to explore men's and women's experiences in American society and the role that ideas about sexual differences have played in shaping those experiences. Areas of inquiry will include, but are not limited to, the following: the construction of gender roles and sexuality; the relationship between gender and other social, political, and legal structures and institutions; and the interplay of gender with race, class, and ethnicity in cultural perceptions and expectations of both men and women. This course will strive to assist students in formulating questions about gender as it relates to their on-going work in various disciplines across the curriculum.

SOC-212 Diversity 3.00

This course utilizes an interdisciplinary and intersectional approach to studying gender, race, class, sexuality and other issues of diversity. The curriculum highlights the duality of oppression and privilege and the ways in which race, gender, class and sexuality shape daily life. Special focus is on learning how to demonstrate course concepts as social action. Social justice is practiced as students become educated in these concepts of diversity and engage in diversity conscious social action.

SOC-216 Study of Alcohol Use and Abuse 3.00

This course is a survey of the historical and contemporary use, abuse and addictive nature of ethyl alcohol and the symptomatology and treatment of alcohol dependence. Students will be provided with a basic knowledge of the nature, scope and complexity of alcohol dependence and the wide range of current approaches to its treatment and prevention. Special attention will be

given to issues of racial-ethnic and spiritual diversity within the context of alcohol use, abuse and recovery.

SOC-217 Study of Drug Use and Abuse 3.00

This course provides students with an understanding of the fundamentals of mood-altering chemicals other than ethyl alcohol, and, theories, symptomatology and drug related illnesses (HIV/AIDS and Hepatitis C). Students will also gain an understanding of the wide variety of perspectives related to the legality and/or illegality of many mood-altering chemical substances. Varying approaches to treatment and prevention of drug abuse will also be explored. Special attention will be given to issues of racial-ethnic and spiritual diversity within the context of drug use, abuse and recovery.

SOC-220 Sociology of Aging 3.00

This course helps the student be informed on national and global issues of aging. Because of expanded life expectancy, aging is an extended developmental stage with multi-faceted and sometimes conflicting social expectations. This course examines ways in which adults navigate this complex developmental stage. This course is interdisciplinary and includes perspectives from sociology, psychology, social work, anthropology, biology, health science and history.

SOC-250 Sociology of Deviance 3.00

This course consists of theoretical analysis of the relation of deviant group behavior and subcultures/countercultures to community standards of conventional behavior as expressed in laws and norms. Analysis of social control settings and mechanisms and the relationship between social deviance and social control efforts at both the micro and macro levels are emphasized.

SOC-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SOC-932 Internship 1.00

This course provides students with on the job experience and practical application of the theories and concepts studied in Addictions counseling course work. It involves a coordinated effort among the student, Western Iowa Tech Community College faculty members and a work supervisor at an agency site. Students are required to complete a minimum of 64 hours at an approved work site for this course. These hours are only a part of the total 1000 hours necessary for full certification. Prerequisite: SOC-110 and Instructor permission.

SOC-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SPC-112 Public Speaking 3.00

The course combines theory of speech communication with public speech performance skills. Emphasis is on speech delivery, preparation, organization, support, and audience analysis. Practice of skills is through presentation and exercise.

SPC-122 Interpersonal Communication 3.00

This course teaches principles of effective communication in one-to-one relationships and in small groups. It focuses on communication theory, listening, self-concept, language, perception, and nonverbal communication.

SPC-917 Experimental Course 1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SPC-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SUR-111 Surgical Procedures I 3.00

This is the first course that will focus surgical procedures. General surgery will include open, laparoscopic and robotics of the gastrointestinal tract, biliary tract, pancreas and spleen, hernia repair, breast, and thyroid. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications for the surgery. Topics relating to wounds include characteristics, types, inflammation, and the phases of healing. Other topics include sutures, staplers, and accessory devices, used to close a surgical wounds. The student will be provided with hands-on experience in preparing the necessary these procedures. Corequisite: SUR-127, SUR-132, SUR-133

SUR-112 Surgical Procedures II 8.00

This is the second course that focuses on surgical procedures in the specialty areas of Orthopedics, OB/GYN, Genitourinary and Ophthalmic. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications of the surgery. This

course utilizes lecture and supervised clinical practice which provides correlation of theory to practice and development of skills. Prerequisite: SUR-111, SUR-127, SUR-132, SUR-133

SUR-127 Introduction to Surgical Technology 3.00

This course provides the student with basic surgical protocols and procedures. Course components include responsibilities, characteristics, and interpersonal relationships of the Surgical Technologist. Historical development, Professional organizations, law and ethic and Medical terminology are included. In addition, students will become familiar with the hospital organization, administration, and physical structure, as well as operation room occupational hazards, safety precautions and infection control standards set forth by OSHA and the CDC. Instructor consent required.

SUR-132 Surgical Technology Practice 5.00

This course introduces the student to the concepts and procedures of surgical care. Topics to be covered include aseptic technique, hand washing, the surgical scrub and surgical gowning techniques, as well as daily procedures and protocols of the surgical process. The student will become familiar with the various routines in the operating room such as case assignments, gathering supplies, surgeon's preference cards, operating room records; back table and Mayo stand set-up, and signals, handling of specimens, surgical counting and draping of the patient. Lab exercise will be conducted to provide hands-on practical experience. Instructor consent required. Corequisite: SUR-111, SUR-127, SUR-133, BIO-169

SUR-133 Surgical Asepsis and Instrumentation 3.00

This course introduces the student to the basic surgical instruments and application of microbiology as it relates to sterilization and asepsis. Emphasis on identification (type, function, and name) and proper handling, including assembly and sterilization, of instruments, equipment, and supplies. Techniques and procedures also include setting up, counting, and handling instruments, sponges, needles, and other sterile supplies. Hands-on practice selecting instruments and accessories will be provided. Corequisite: BIO-169, SUR-111, SUR-127, SUR-132

SUR-145 Patient Care Concepts 3.00

This course introduces the student to the roles and responsibilities of the surgical team when delivering peri-operative patient care and surgical services. Patients' needs are addressed in addition to patient identification, review of the chart, documentation, and surgical positioning, skin preparation, urinary catheterization, specimen care, wound classification, vital signs, hemo-dynamics, monitoring and discharge planning. Instructor consent required. Prerequisite: SUR-127

- SUR-213 Surgical Procedures III 8.00**
This is the third course that focuses on surgical procedures in the specialty areas of Otorhinolaryngology, Plastic Reconstructive, Oral Maxillofacial, and Neurosurgery. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications of the surgery. This course utilizes lecture and supervised clinical practice which provides correlation of theory to practice and development of skills. Prerequisite: SUR-112
- SUR-214 Surgical Procedures IV 7.00**
This is the fourth course that focuses on surgical procedures in the specialty areas of Thoracic, Vascular, Cardiac, Pediatrics and Trauma. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications of the surgery. This course utilizes lecture and supervised clinical practice which provides correlation of theory to practice and development of skills. Prerequisite: SUR-213
- SUR-350 Surgical Board Review 1.00**
The purpose of this course is to prepare the students to sit for the Surgical Technology National Board Certified Examination. Preparation will be a review of materials previous presented throughout the surgical technology program. Prerequisite: SUR-535
- SUR-423 Pharmacology for the Surgical Technologist 3.00**
This course introduces pharmacological fundamental that correlate with the surgical settings. Emphasis is placed on the role and responsibility of the surgical technologist related to medication handling. The student will compare and contrast methods, agents, and techniques of administration and preparation medications and solutions. Topics to be covered will include surgical team roles, classifications, packaging, measurements, calculations, and delivery of medications. Anesthesia techniques including regional, general and local administration are covered. Prerequisite: SUR-127, SUR-132
- SUR-535 Surgical Preceptorship 2.00**
This course is conducted in a surgical facility and provides students an on-the-job clinical experience with a variety of perioperative assignments. The student will experience a wide variety of operating room situations where he/she will use the skills learned in the classroom. Under the supervision of the clinical preceptor, the student will take part in surgical procedures and work as a member of the surgical team demonstrating preparedness for entry level employment. Instructor consent required. Prerequisite: SUR-214
- SUR-917 Experimental Course 1.00 - 4.00**

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SUR-949 Special Topics 1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

WEL-110 Welding Blueprint Reading 2.00

This course presents the use of blueprints for transfer of ideas and information. Students learn how to read blueprints with special emphasis on welding blueprints, including lines, views, material descriptions, welding layouts, welding symbols and terms. The application of concepts will be emphasized. Prerequisite: MAT-772

WEL-112 Welding Blueprint Reading/ Advanced 2.00

This course presents the use of blueprints for transfer of ideas and information. It covers how to read blueprints with special emphasis on welding blueprints, including lines, views, material descriptions, welding joints, pipe symbols and inspection and testing. This course emphasizes the application of concepts. Prerequisite: WEL-110

WEL-120 Oxy Fuel Welding and Cutting 2.00

In this course students will learn the fundamentals of oxy/fuel welding including the safe operation, proper setup, and welding and metal cutting skills. Topics include fusion welding and brazing on light gauge metals, cutting on heavy and light gauge metals, and welding of small diameter pipe.

WEL-147 ARC Welding Introduction (SMAW) 3.00

This is the first of two courses designed for students to prepare for the AWS Certification. A combined lecture and lab course, students study safety, heat settings, polarity, and the proper selection of electrodes in the arc welding process. Topics include welding on carbon steel plate using visual and destructive methods of determining weld quality to AWS Standards.

WEL-148 ARC Welding Intermediate (SMAW) 3.00

This is the second of two courses designed for students to prepare for the AWS certification. A combined lecture and lab course, students study safety, heat settings, polarity, penetration welding, horizontal and vertical welding, and the proper selection of electrodes in the arc welding process. Topics include welding

on carbon steel plate using visual and destructive methods of determining weld quality to AWS Standards Prerequisite: WEL-147

WEL-164 Arc Welding II (SMAW) 4.00

This course combines lecture and lab activities to present welding codes, distortion, and welding inspection. Students are exposed to welding with a variety of welding electrodes, providing lab experiences in full penetration, horizontal, vertical, and overhead position welds. Prerequisite: WEL-148

WEL-191 Gas Tungsten Arc Welding 3.00

This course combines lecture and lab activities to present Tungsten Inert Gas (TIG) welding process. Students study equipment use, welding procedures, position welding, welding of common metals and safety precautions. Topics include welding in all positions on ferrous and nonferrous metals, and small diameter pipe. Prerequisite: WEL-120

WEL-208 Introduction to Fabrication 2.00

This course combines lecture and lab activities to develop individualized skills needed in a manufacturing atmosphere such as tool usage, layout methods and material estimation. Students are provided an opportunity for plate welding certification. Prerequisite: Assessment and advising. Prerequisite: MAT-772, WEL-425, WEL-110

WEL-292 Pipe Welding/SMAW - Uphill 4.00

This course introduces students to the knowledge and skills needed for pipe welding in the 2G, 5G, & 6G positions using the SMAW process. It is a combined lecture and lab course. Prerequisite: WEL-164

WEL-294 Pipe Welding GTAW/SMAW 4.00

This course prepares students for entry-level positions using pipe welding in the 2G, 5G, & 6G positions using GTAW and SMAW processes. This is a combined lecture and lab course. Prerequisite: WEL-191

WEL-331 Welding Fundamentals 2.00

This course is designed for the student who needs basic welding skills. The four welding processes covered are: Shielded Metal Arc Welding (SMAW or stick), Oxy-Acetylene Welding, Gas Metal Arc Welding (MIG), and Gas Tungsten Arc Welding (TIG). Topics include: safety, setup of equipment, electrode selection, metal transfer, shielding gases, welding distortion control, and the welding of ferrous and nonferrous metals. Lab experience will provide for skill development in these areas.

WEL-420 Intermediate Pulse Arc GMAW Welding 4.00

This course combines lecture and lab activities to present the Gas Metal Arc welding (MIG) process used extensively by industry, with a focus on pulse metal transfer. It emphasizes hands-on applications, metal transfer concepts, GMAW equipment, welding procedures, and out of position welding with an emphasis on aluminum and mild steel, as well as safety. Prerequisite: WEL-424

WEL-421 Flux Core Arc Welding (FCAW) 4.00

This course combines lecture and lab activities to introduce the Flux Cored Arc Welding (FCAW) process used extensively by industry. Students learn through hands-on applications and will be introduced to the theory of metal transfer, FCAW equipment, welding procedures, out of position welding, and safety. Prerequisite: WEL-422

WEL-422 GMAW for Production 4.00

This course combines lecture and lab activities to present the Gas Metal Arc welding (MIG) process used extensively by industry. A continuation of Intro to GMAW, WEL 423, students learn out of position welds using hands-on applications, metal transfer concepts, GMAW equipment maintenance, welding procedures, out of position welding, and safety. Prerequisite: WEL-423

WEL-423 Intro to GMAW 2.00

This course combines lecture and lab activities to present the Gas Metal Arc Welding (MIG) process used extensively by industry. It emphasizes hands-on applications, metal transfer concepts, GMAW equipment, and safety.

WEL-424 Intro to Pulse Arc GMAW Welding 3.00

This course combines lecture and lab activities to present the Gas Metal Arc Welding (MIG) process used extensively by industry with a focus on pulse metal transfer. This course emphasizes hands-on applications, GMAW pulse arc transfer concepts, GMAW pulse arc equipment, welding procedures, out of position welding, with an emphasis on stainless and mild steels and safety. Prerequisite: WEL-422

WEL-425 Measuring, Layout, and Applied Weld Symbols 1.00

This course combines lecture and lab activities to present basic measuring and layout tools used extensively by industry, as well as application of basic symbols. It emphasizes hands-on applications, accurate measurements techniques and proper use of tools and interpretation of basic weld symbols.

WEL-700 Robotic Welding 4.00

This course introduces students to welding robots and the application of robotics in the welding industry. Topics include the safe use of robotic welders in industry, robot programming fundamentals, interfacing of the welding power source to the robot and basic weldment fixturing. Students will operate an industrial robotic

welding system, using computer and teach pendant modes. Prerequisite: WEL-422

WEL-917 Experimental Course

1.00 - 4.00

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

WEL-949 Special Topics

1.00 - 4.00

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AS28 Report

SCC 16 1101030200 Information Technology.
CAMPUS N/A
 Type of Award: Network Administration & Cyber Security
AAS
ITSO 03 02 11 03

| CONTACT HOURS | | | |
|---------------|-----|--------|------|
| Lecture | Lab | Clinic | Work |

| TERM 1 | | | | | | | | | | | |
|--------|-----|-----|---|--|-----|----|----|---|---|-----|-----|
| | CIS | 125 | * | Introduction to Programming Logic w/language | 3.0 | 32 | 32 | 0 | 0 | 3.0 | |
| 2 | CSC | 110 | * | Introduction to Computers | 3.0 | 48 | 0 | 0 | 0 | Ot | 3.0 |
| 3 | MAT | 702 | * | Introduction to Math Applications | 3.0 | 32 | 32 | 0 | 0 | M S | 3.0 |
| 4 | MAT | 772 | * | Applied Math | 3.0 | 48 | 0 | 0 | 0 | A S | 3.0 |
| 5 | NET | 122 | * | Computer Hardware Basics | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 6 | NET | 142 | * | Network Essentials | 3.0 | 48 | 0 | 0 | 0 | | 3.0 |
| 7 | NET | 442 | * | Linux Operating System | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |

Term Total **18.0**

| TERM 2 | | | | | | | | | | | |
|--------|-----|-----|---|--------------------------------------|-----|----|----|---|---|-----|-----|
| 8 | CIS | 504 | * | Structural Systems Analysis | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 9 | ENG | 105 | | Composition I | 3.0 | 48 | 0 | 0 | 0 | M C | 3.0 |
| 10 | ENG | 111 | * | Technical Writing | 3.0 | 48 | 0 | 0 | 0 | A C | 3.0 |
| 11 | NET | 101 | * | IT Fundamentals | 1.0 | 16 | 0 | 0 | 0 | | 1.0 |
| 12 | NET | 310 | * | Virtual Machines | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 13 | NET | 314 | * | Windows Server | 4.0 | 32 | 64 | 0 | 0 | | 4.0 |
| 14 | HUM | 287 | | Leadership Development Studies | 3.0 | 48 | 0 | 0 | 0 | M H | 3.0 |
| 15 | PHI | 142 | | Ethics in Business | 3.0 | 48 | 0 | 0 | 0 | A H | 3.0 |
| 16 | SOC | 114 | | Conflict Resolution in the Workplace | 3.0 | 48 | 0 | 0 | 0 | A H | 3.0 |

Term Total **17.0**

| TERM 3 | | | | | | | | | | | |
|--------|-----|-----|---|------------------------------------|-----|----|----|---|---|-----|-----|
| 17 | BUS | 203 | * | Professional Development | 2.0 | 32 | 0 | 0 | 0 | | 2.0 |
| 18 | CFR | 100 | * | Introduction to Computer Forensics | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 19 | HUM | 287 | | Leadership Development Studies | 3.0 | 48 | 0 | 0 | 0 | M H | 3.0 |
| 20 | PSY | 111 | | Introduction to Psychology | 3.0 | 48 | 0 | 0 | 0 | A H | 3.0 |
| 21 | SOC | 110 | | Introduction to Sociology | 3.0 | 48 | 0 | 0 | 0 | A H | 3.0 |
| 22 | NET | 637 | * | Network Intrusion Investigation | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 23 | NET | 716 | * | Database Admin/Service App | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |

Term Total **14.0**

| TERM 4 | | | | | | | | | | | |
|--------|-----|-----|---|-------------------------------|-----|----|----|---|-----|---|-----|
| 24 | CIS | 810 | * | Emerging Technologies Seminar | 1.0 | 16 | 0 | 0 | 0 | | 1.0 |
| 25 | NET | 153 | * | Advanced Networking | 4.0 | 32 | 64 | 0 | 0 | | 4.0 |
| 26 | NET | 717 | * | Email Applications | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 27 | NET | 820 | * | Network Internship | 3.7 | 0 | 0 | 0 | 240 | | 3.8 |
| 28 | SPC | 112 | | Public Speaking | 3.0 | 48 | 0 | 0 | 0 | C | 3.0 |

Term Total **14.7**

Program Total **63.7**

CAMPUS N/A
 Type of Award: Web Design & Development
AAS1
ITSO 03 02 11 03

| CONTACT HOURS | | | |
|---------------|-----|--------|------|
| Lecture | Lab | Clinic | Work |

| TERM 1 | | | | | | | | | | | |
|--------|-----|-----|---|---------------------------|-----|----|----|---|---|-----|-----|
| 1 | CSC | 110 | * | Introduction to Computers | 3.0 | 48 | 0 | 0 | 0 | Ot | 3.0 |
| 2 | GRA | 140 | * | Digital Imaging | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 3 | GRA | 175 | * | Graphic Design Principles | 3.0 | 48 | 0 | 0 | 0 | | 3.0 |
| 4 | SMM | 108 | * | Social Media Engagement | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 5 | ENG | 105 | | Composition I | 3.0 | 48 | 0 | 0 | 0 | M C | 3.0 |
| 6 | ENG | 111 | * | Technical Writing | 3.0 | 48 | 0 | 0 | 0 | A C | 3.0 |

Term Total **15.0**

| TERM 2 | | | | | | | | | | | |
|--------|-----|-----|---|----------------------------|-----|----|----|---|---|---|-----|
| 7 | GRA | 158 | * | Web Multimedia | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 8 | GRA | 166 | * | Web Animations | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |
| 9 | HUM | 114 | * | Multicultural Perspectives | 3.0 | 48 | 0 | 0 | 0 | H | 3.0 |
| 10 | MKT | 121 | * | Digital Marketing | 3.0 | 32 | 32 | 0 | 0 | | 3.0 |

| | | | | | | | | | | | | | | | | | | |
|----|-----|-----|---|---------------------|-----|----|----|---|---|---|---|--|--|--|--|--|--|-----|
| 11 | WDV | 101 | * | Intro HTML and CSS | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 12 | ART | 120 | * | 2-D Design | 3.0 | 32 | 32 | 0 | 0 | M | H | | | | | | | 3.0 |
| 13 | ART | 133 | * | Drawing | 3.0 | 32 | 32 | 0 | 0 | A | H | | | | | | | 3.0 |
| 14 | ART | 186 | * | Digital Photography | 3.0 | 48 | 0 | 0 | 0 | A | | | | | | | | 3.0 |
| 15 | ENG | 221 | * | Creative Writing | 3.0 | 48 | 0 | 0 | 0 | A | C | | | | | | | 3.0 |

Term Total **18.0**

TERM 3

| | | | | | | | | | | | | | | | | | | |
|----|-----|-----|---|-----------------------------------|-----|----|----|---|---|--|---|--|--|--|--|--|--|-----|
| 16 | MAT | 702 | * | Introduction to Math Applications | 3.0 | 32 | 32 | 0 | 0 | | S | | | | | | | 3.0 |
|----|-----|-----|---|-----------------------------------|-----|----|----|---|---|--|---|--|--|--|--|--|--|-----|

Term Total **3.0**

TERM 4

| | | | | | | | | | | | | | | | | | | |
|----|-----|-----|---|--|-----|----|----|---|---|--|--|--|--|--|--|--|--|-----|
| 17 | CIS | 125 | * | Introduction to Programming Logic w/language | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 18 | CIS | 332 | * | Database and SQL | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 19 | GRA | 299 | * | Electronic Portfolio | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 20 | NET | 142 | * | Network Essentials | 3.0 | 48 | 0 | 0 | 0 | | | | | | | | | 3.0 |
| 21 | WDV | 120 | * | Interface Design | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |

Term Total **15.0**

TERM 5

| | | | | | | | | | | | | | | | | | | |
|----|-----|-----|---|--------------------------------|-----|----|----|---|-----|---|---|--|--|--|--|--|--|-----|
| 22 | BUS | 150 | * | E-Commerce | 3.0 | 48 | 0 | 0 | 0 | | | | | | | | | 3.0 |
| 23 | NET | 825 | * | Internet/Web Internship | 3.7 | 0 | 0 | 0 | 240 | | | | | | | | | 3.8 |
| 24 | WDV | 132 | * | Mobile Application Development | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 25 | WDV | 341 | * | Intro PHP | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 26 | ART | 120 | * | 2-D Design | 3.0 | 32 | 32 | 0 | 0 | M | H | | | | | | | 3.0 |
| 27 | ART | 133 | * | Drawing | 3.0 | 32 | 32 | 0 | 0 | A | H | | | | | | | 3.0 |
| 28 | ART | 184 | * | Photography | 3.0 | 32 | 32 | 0 | 0 | A | H | | | | | | | 3.0 |
| 29 | ENG | 221 | * | Creative Writing | 3.0 | 48 | 0 | 0 | 0 | A | C | | | | | | | 3.0 |
| 30 | ENG | 105 | * | Composition I | 3.0 | 48 | 0 | 0 | 0 | A | C | | | | | | | 3.0 |
| 31 | ENG | 111 | * | Technical Writing | 3.0 | 48 | 0 | 0 | 0 | A | C | | | | | | | 3.0 |

Term Total **15.7**

Program Total **66.7**

CAMPUS N/A

Type of Award: IT Technician

Dipl2

ITSO 03 02 11 03

| CONTACT HOURS | | | | | | | | |
|---------------|---------|-----|--------|------|-----|--------|-----------|-----------------|
| Credits | Lecture | Lab | Clinic | Work | Alt | Gen Ed | Foot Note | ContHr / CredHr |

TERM 1

| | | | | | | | | | | | | | | | | | | |
|---|-----|-----|---|--|-----|----|----|---|---|---|----|--|--|--|--|--|--|-----|
| 1 | CIS | 125 | * | Introduction to Programming Logic w/language | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 2 | CSC | 110 | * | Introduction to Computers | 3.0 | 48 | 0 | 0 | 0 | | Ot | | | | | | | 3.0 |
| 3 | MAT | 702 | * | Introduction to Math Applications | 3.0 | 32 | 32 | 0 | 0 | M | S | | | | | | | 3.0 |
| 4 | MAT | 772 | * | Applied Math | 3.0 | 48 | 0 | 0 | 0 | A | S | | | | | | | 3.0 |
| 5 | NET | 122 | * | Computer Hardware Basics | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 6 | NET | 142 | * | Network Essentials | 3.0 | 48 | 0 | 0 | 0 | | | | | | | | | 3.0 |
| 7 | NET | 442 | * | Linux Operating System | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |

Term Total **18.0**

TERM 2

| | | | | | | | | | | | | | | | | | | |
|----|-----|-----|---|--------------------------------------|-----|----|----|---|---|---|---|--|--|--|--|--|--|-----|
| 8 | CIS | 504 | * | Structural Systems Analysis | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 9 | ENG | 105 | | Composition I | 3.0 | 48 | 0 | 0 | 0 | M | C | | | | | | | 3.0 |
| 10 | ENG | 111 | * | Technical Writing | 3.0 | 48 | 0 | 0 | 0 | A | C | | | | | | | 3.0 |
| 11 | NET | 101 | * | IT Fundamentals | 1.0 | 16 | 0 | 0 | 0 | | | | | | | | | 1.0 |
| 12 | NET | 310 | * | Virtual Machines | 3.0 | 32 | 32 | 0 | 0 | | | | | | | | | 3.0 |
| 13 | NET | 314 | * | Windows Server | 4.0 | 32 | 64 | 0 | 0 | | | | | | | | | 4.0 |
| 14 | HUM | 287 | | Leadership Development Studies | 3.0 | 48 | 0 | 0 | 0 | M | H | | | | | | | 3.0 |
| 15 | PHI | 142 | | Ethics in Business | 3.0 | 48 | 0 | 0 | 0 | A | H | | | | | | | 3.0 |
| 16 | SOC | 114 | | Conflict Resolution in the Workplace | 3.0 | 48 | 0 | 0 | 0 | A | H | | | | | | | 3.0 |

Term Total **17.0**

Program Total **35.0**

CAMPUS N/A

Type of Award: Dipl3 Web Design

ITSO 03 02 11 03

| CONTACT HOURS | | | | | | | | |
|---------------|---------|-----|--------|------|-----|--------|-----------|-----------------|
| Credits | Lecture | Lab | Clinic | Work | Alt | Gen Ed | Foot Note | ContHr / CredHr |

TERM 1

| | | | | | | | | | | | | | | | | | | |
|---|-----|-----|---|---------------------------|-----|----|---|---|---|--|----|--|--|--|--|--|--|-----|
| 1 | CSC | 110 | * | Introduction to Computers | 3.0 | 48 | 0 | 0 | 0 | | Ot | | | | | | | 3.0 |
|---|-----|-----|---|---------------------------|-----|----|---|---|---|--|----|--|--|--|--|--|--|-----|

| | | | | | | | | | | | | |
|---|-----|-----|---|---------------------------|-----|----|----|---|---|---|---|-----|
| 2 | GRA | 140 | * | Digital Imaging | 3.0 | 32 | 32 | 0 | 0 | | | 3.0 |
| 3 | GRA | 175 | * | Graphic Design Principles | 3.0 | 48 | 0 | 0 | 0 | | | 3.0 |
| 4 | SMM | 108 | * | Social Media Engagement | 3.0 | 32 | 32 | 0 | 0 | | | 3.0 |
| 5 | ENG | 105 | | Composition I | 3.0 | 48 | 0 | 0 | 0 | M | C | 3.0 |
| 6 | ENG | 111 | * | Technical Writing | 3.0 | 48 | 0 | 0 | 0 | A | C | 3.0 |

Term Total **15.0**

TERM 2

| | | | | | | | | | | | | |
|----|-----|-----|---|----------------------------|-----|----|----|---|---|---|---|-----|
| 7 | GRA | 158 | * | Web Multimedia | 3.0 | 32 | 32 | 0 | 0 | | | 3.0 |
| 8 | GRA | 166 | * | Web Animations | 3.0 | 32 | 32 | 0 | 0 | | | 3.0 |
| 9 | HUM | 114 | * | Multicultural Perspectives | 3.0 | 48 | 0 | 0 | 0 | | H | 3.0 |
| 10 | MKT | 121 | * | Digital Marketing | 3.0 | 32 | 32 | 0 | 0 | | | 3.0 |
| 11 | WDV | 101 | * | Intro HTML and CSS | 3.0 | 32 | 32 | 0 | 0 | | | 3.0 |
| 12 | ART | 120 | * | 2-D Design | 3.0 | 32 | 32 | 0 | 0 | M | H | 3.0 |
| 13 | ART | 133 | * | Drawing | 3.0 | 32 | 32 | 0 | 0 | A | H | 3.0 |
| 14 | ART | 186 | * | Digital Photography | 3.0 | 48 | 0 | 0 | 0 | A | | 3.0 |
| 15 | ENG | 221 | * | Creative Writing | 3.0 | 48 | 0 | 0 | 0 | A | C | 3.0 |

Term Total **18.0**

TERM 3

| | | | | | | | | | | | | |
|----|-----|-----|---|-----------------------------------|-----|----|----|---|---|--|---|-----|
| 16 | MAT | 702 | * | Introduction to Math Applications | 3.0 | 32 | 32 | 0 | 0 | | S | 3.0 |
|----|-----|-----|---|-----------------------------------|-----|----|----|---|---|--|---|-----|

Term Total **3.0**

Program Total **36.0**

Footnotes

| SUMMARY | | | | | | |
|-------------|---|---------|--------|----------|----------|-------------------|
| AAS | Network Administration & Cyber Security | | | | | |
| | Contact Hours | | | | | |
| Term | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 18.00 | 224.00 | 128.00 | 0.00 | 0.00 | 352.00 |
| Term 2 | 17.00 | 208.00 | 128.00 | 0.00 | 0.00 | 336.00 |
| Term 3 | 14.00 | 176.00 | 96.00 | 0.00 | 0.00 | 272.00 |
| Term 4 | 14.70 | 128.00 | 96.00 | 0.00 | 240.00 | 464.00 |
| GRAND TOTAL | 63.70 | 736.00 | 448.00 | 0.00 | 240.00 | 1424.00 |
| AAS1 | Web Design & Development | | | | | |
| | Contact Hours | | | | | |
| Term | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 15.00 | 208.00 | 64.00 | 0.00 | 0.00 | 272.00 |
| Term 2 | 18.00 | 208.00 | 160.00 | 0.00 | 0.00 | 368.00 |
| Term 3 | 3.00 | 32.00 | 32.00 | 0.00 | 0.00 | 64.00 |
| Term 4 | 15.00 | 176.00 | 128.00 | 0.00 | 0.00 | 304.00 |
| Term 5 | 15.70 | 144.00 | 96.00 | 0.00 | 240.00 | 480.00 |
| GRAND TOTAL | 66.70 | 768.00 | 480.00 | 0.00 | 240.00 | 1488.00 |
| Dipl2 | IT Technician | | | | | |
| | Contact Hours | | | | | |
| Term | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 18.00 | 224.00 | 128.00 | 0.00 | 0.00 | 352.00 |
| Term 2 | 17.00 | 208.00 | 128.00 | 0.00 | 0.00 | 336.00 |
| GRAND TOTAL | 35.00 | 432.00 | 256.00 | 0.00 | 0.00 | 688.00 |
| Dipl3 | Web Design | | | | | |

| Term | Contact Hours | | | | | |
|-------------|---------------|---------|--------|----------|----------|-------------------|
| | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 15.00 | 208.00 | 64.00 | 0.00 | 0.00 | 272.00 |
| Term 2 | 18.00 | 208.00 | 160.00 | 0.00 | 0.00 | 368.00 |
| Term 3 | 3.00 | 32.00 | 32.00 | 0.00 | 0.00 | 64.00 |
| GRAND TOTAL | 36.00 | 448.00 | 256.00 | 0.00 | 0.00 | 704.00 |

| COMPLIANCE | | | | | | |
|------------|-------|-------|--------------|--------------|---------------|-------------|
| Award Type | Cr. H | Weeks | Avg Per Term | Gen Ed Cr. H | Gen Ed Categ. | % Tech Core |
| AAS | 63.7 | 56 | 18.20 | 18 | 3 | 81.16% |
| AAS1 | 66.7 | 72 | 14.82 | 18 | 3 | 95.50% |
| Dipl2 | 35 | 32 | 17.50 | 12 | 3 | 82.86% |
| Dipl3 | 36 | 40 | 14.40 | 15 | 3 | 91.67% |

Contact:

Palmer, Debra, , dpalmer@scciowa.edu

Submitted:

06/02/2016

Approved by Advisory Committee:

02/21/2016

Implementation Begins:

08/15/2016

Approved by DOE:

07/07/2016

Curriculum Committee approved adding a New course NET-101, IT Fundamentals to IT Network Administration & Cyber Security AAS & IT Technician Diploma Spring I (term 2) per recommendation of Advisory Board to continue to meet state requirements. Also, replace BUS-180 and ACC-111 in IT Network Administration & Cyber Security AAS Fall II (term 3) with PHI-142 or SOC-114 to fulfill the Gen Ed Requirement. Curriculum Committee approved replacing NET-716 with PHI-142 or HUM-287 or SOC-114 to the IT Technician Diploma to give the students valuable skills in the work environment and make them more marketable for jobs after graduation as approved by the Advisory Board. Also, move NET-716 in IT Network Administration & Cyber Security AAS Spring I (term 2) to Fall II (term 3). Move HUM-287, PHI-142 and SOC-114 from Fall II (term 3) to Spring I (term 2).

Curriculum Committee approved replacing GRA-127 with HUM-114 in the Web Design & Development AAS & Web Design Diploma Spring I (term 2) per recommendation of Advisory Board to fulfill the Gen Ed requirement. Also, replace ART-184 with Art-186 in the Web Design & Development AAS & Web Design Diploma Spring I (term 2) per recommendation of Advisory Board due to changes in technology.

Course Comparison Report

[View Printable Version](#)

Previous Report



ENG 106 Composition II

Credit Hours: 3

Lecture Hours: 48

Lab Hours: None

Clinical Hours: None

Co-Op Hours: None

COURSE DESCRIPTION:

~~Composition II aims to review and extend writing principles learned in Composition I to argumentative and research writing.~~ This course emphasizes critical reading, evaluation, and precise and responsible source citation.

COURSE PREREQUISITE(S):

Prerequisite

ENG 105 Composition I

COURSE OBJECTIVE(S):

This course will:

- ~~emphasize the analysis of communications elements, including self, purpose, audience, and texts, in terms of logical, ethical, and emotional factors.~~
- ~~expand the scope of "text" and "research resource" to include nontraditional media.~~

Current Report



ENG 106 Composition II

Credit Hours: 3

Lecture Hours: 48

Lab Hours: None

Clinical Hours: None

Co-Op Hours: None

COURSE DESCRIPTION:

Composition II aims to review and extend writing principles learned in Composition I to analytical, argumentative, and research-based writing. This course emphasizes critical reading, evaluation, and precise and responsible source citation.

COURSE PREREQUISITE(S):

Prerequisite

ENG 105 Composition I

COURSE OBJECTIVE(S):

This course will:

- Encourage students to continue applying the recursive process of writing using prewriting, revising, editing, and peer review learned in Composition I and adapt these recursive process skills to the Composition II context.

3. ~~develop critical literacy in creating, accessing, and evaluating research sources.~~
4. ~~involve students in methodically summarizing, paraphrasing, quoting, and otherwise citing sources in a documented format.~~
5. ~~develop skills in making and supporting arguments.~~
6. ~~provide a context for the systematic consideration of elements of form, style, usage/mechanics, and content in written communications.~~
7. ~~encourage students to continue applying the recursive process of writing learned in Composition I and adapting these recursive process skills to the Composition II context.~~
8. ~~Recommended: encourage student acquisition of word processing, Internet skills, and other computer and communications related skills.~~

STUDENT LEARNING ACTIVITIES:

1. Lecture
~~group work, instructional handouts, writing exercises and assignments, an essay examination, journal writing, and library research. A minimum of five major graded writing assignments, one of which will be a researched report of at least five pages. The other four will be selected from the following: journal, essay exam, major revision, progress report/essay on research projects, and shorter critical thinking essays that encompass the suggested rhetorical style and page length (see Section V of course outline for types). Optional presentations that may be shorter in length as pieces of writing or primarily oral in nature can be used in conjunction with essays or longer research projects.~~

INSTRUCTIONAL RESOURCES:

EVALUATION:

2. Develop strategies for academic reading to encourage rhetorical analysis and critique
3. Develop information literacy skills in locating, selecting, and evaluating appropriate research sources.

STUDENT LEARNING ACTIVITIES:

1. Lecture
2. Develop instructional handouts, writing exercises and assignments, an essay examination, journal writing, and library research. A minimum of five major graded writing assignments, one of which will be a researched report of at least five pages. The other four will be selected from the following: journal, essay exam, major revision, progress report/essay on research projects, and shorter critical thinking essays that encompass the suggested rhetorical style and page length (see Section V of course outline for types). Optional presentations that may be shorter in length as pieces of writing or primarily oral in nature can be used in conjunction with essays or longer research projects.
3. Required categories of Writing using analytical and
 - Minimum of one from each category in Writing Numbers A, B, and C from a total of at least three individually written papers
 - At least three of the revised papers should be 4-6 pages in length.

INSTRUCTIONAL RESOURCES:

1. Required texts, handouts, videotapes, etc.

EVALUATION:

Written essays, assignments, and class participation.

Standards of performance will be established by the instructor and included in the individual class syllabus.

Students' Special Needs:

Hawkeye Community College (HCC) strives for student-centered, quality education with flexibility to allow for students' special needs. Students with physical, mental, or learning disabilities should contact the Special Needs Coordinator in Student Services at 319/296-4014 or specialneeds@hawkeyecollege.edu to learn how to apply for accommodations at HCC. Or, visit our website for more information and forms:

<http://www.hawkeyecollege.edu/students/services/student-disability-services/default.aspx>

Nondiscrimination Statement:

Hawkeye Community College does not discriminate on the basis of sex; race; age; color; creed; national origin; religion; disability; marital status; sexual orientation; gender identity; genetic information; political affiliation or belief in its employment practices; educational programs and activities; admission procedures; outreach and recruitment; counseling and guidance; testing;

Written examinations, assignments, and class participation.

Standards of performance will be established by the instructor and included in the individual class syllabus.

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Hawkeye Community College (HCC) strives for student-centered, quality education with flexibility to allow for students' special needs. Students with physical, mental, or learning disabilities should contact the Special Needs Coordinator in Student Services at 319/296-4014 or

specialneeds@hawkeyecollege.edu to learn how to apply for accommodations at HCC. Or, visit our website for more information and forms:

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selection, placement, appointment, and referral; or promotion/retention. Veteran status in educational programs, activities, employment practices, or admission procedures is also included to the extent covered by law. Students, prospective students, employees, or applicants for employment alleging a violation of equity regulations shall have the right to file a formal complaint. Inquiries concerning application of this statement should be addressed to: John Clopton (Equity Coordinator and Title IX Coordinator for Employees) or Nancy Henderson (Title IX Coordinator for Students), Hawkeye Community College, 1501 East Orange Road, P.O. Box 8015, Waterloo, Iowa 50704-8015, telephone 319-296-4405, email: equity-titleIX@hawkeyecollege.edu.

COURSE OUTLINE:

- I. Writing as a Process
 - A. Prewriting Strategies
 - 1. Generating ideas
 - 2. ~~Analyzing audience~~
 - 3. ~~Formulating the purpose for writing~~
 - 4. ~~Planning the appropriate organizational approach~~
 - B. ~~Drafting~~
 - C. ~~Revising~~
 - 1. ~~Organization~~
 - 2. ~~Wording/style~~
 - 3. ~~Unity~~
 - 4. ~~Coherence~~
 - 5. ~~Support/development~~
 - D. Editing
 - 1. ~~Spelling~~
 - 2. ~~Punctuation~~
 - 3. ~~Usage~~
 - E. ~~*Peer Response to Drafts in Progress~~
 - F. ~~*Metacognitive Writing~~
- II. ~~Critical Reading and Thinking~~
 - A. ~~Previewing~~
 - B. ~~Putting the Work into Context~~
 - C. ~~Questioning/Challenging Ideas~~
 - D. ~~Identifying Main Ideas~~
 - E. ~~Paraphrasing and Summarizing~~
 - F. ~~Evaluating Arguments~~
 - G. ~~Identifying Organizational Patterns~~
 - H. ~~Critiquing~~
 - I. ~~Notetaking~~
- III. ~~Research and Use of Source Material~~
- IV. ~~Selecting and Evaluating Sources~~

COURSE OUTLINE:

- I. Writing as a Process
 - A. Prewriting Strategies
 - 1. Generating ideas
 - 2. Analyzing audience
 - 3. Formulating the purpose for writing
 - 4. Planning the appropriate organizational approach
 - 5. Utilizing reading selections to create individual writing
 - B. Drafting
 - 1. Setting goals and generating material
 - 2. Writing drafts with appropriate audience, purpose and genre
 - 3. Incorporating the basic features of the assigned writing task into the draft
 - C. Revising
 - 1. Reading own/peer drafts to gain experience
 - 2. Practicing revision for different purposes: organization, support and development, unity, coherence, and wording and style
 - 3. Identifying common problems that keep a draft from reaching its audience

- A. ~~Integrating Information from Sources into a Student Written Text~~
 - B. ~~Using Accurate and Appropriate Documentation Formation~~
 - C. ~~Argument~~
 - C. ~~Developing Rhetorical Positions~~
 - 1. ~~Offering Proof with Intelligent Use of Sources~~
- V. ~~Types of Writing (“A” is mandatory; the other four (4) major required assignments should be chosen from B-H, 2-4 pages each)~~
- A. ~~Position Paper or Problem Solution Paper (5-10 pages with documentation)~~
 - B. ~~Analysis of Cause and Effect or Trend~~
 - C. ~~Interpretation of Literature or Popular Culture, Comparison of Sources or other Evaluation Arguments~~
 - D. ~~Progress Report~~
 - E. ~~Shorter Problem/Solution Essay~~
 - F. ~~Reading Journal or Informal Reflective Writing~~
 - G. ~~Timed, In-Class Essay Test~~
 - H. ~~Major Revisions~~

Applying techniques from reading selections to their own writing

D.

Editing

1.

Utilizing a style manual to edit writing

2.

Analyzing mechanical correctness

E.

Using Peer Response to Drafts in Progress

1.

Providing peer response to classmates’ writing

2.

Using feedback to make changes in own writing

3.

Accepting constructive criticism as a necessary component of the writing process

II.

Strategies for Academic Reading

A.

Reading as Inquiry

1.

Previewing text and identifying genre and situation

2.

Taking Notes and annotating to interact with the text

3.

Analyzing sources for multiple purposes

4.

Contextualizing a text

5.

Paraphrasing and summarizing without bias

6.

Making critical judgments about aspects of a text that challenge students

7.

Examining and viewing materials from multiple perspectives

B.

Examining Rhetorical Patterns

1. Identifying main ideas
2. Analyzing arguments
3. Identifying organizational patterns
4. Critiquing materials

III.

Information Literacy

A.

Locating and Selecting Sources

1. Making transition from preference for free internet sources to academic library sources and databases (both print and electronic) versus free internet sources
2. Using secondary sources from multiple formats
3. Understanding different types of electronic databases
4. Using Boolean searches and other advanced search strategies

B.

Evaluating Sources

1. Understanding the advantages of academic sources and databases
2. Evaluating sources based on objective criteria

IV.

Utilizing Sources

A.

Integrating information from sources into a student written text

B.

Writing paraphrases that avoid plagiarism

C.

Using attributive tags and other style devices to incorporate source material

D.

Providing original explanatory text to explain source material

V.

Developing a Writer's Voice/Persona

A.

Engaging in Critical and Independent Thinking

1.

Using writing to give interpretation of a text

2.

Responding to sources critically

B.

Developing Rhetorical Process

1.

Organizing materials to show critical thought and planning

2.

Using the three step process of creating a thesis, proposing reasons to support the thesis, and providing evidence

3.

Understanding flaws in logic and fallacies

C.

Making Connections between Sources and Ideas

1.

Using sources as support

2.

Incorporating sources appropriately to strengthen an argument

3.

Utilizing evidence in an appropriate manner

D.

Reflecting/Synthesizing

1.

Reflecting on one's own writing

2.

Gaining awareness over the writing process

VI.

Argument and Analysis

A.

Developing Rhetorical Positions from Critical Reading

1.

Writing a comparison of sources and/or multiple source analysis

2.

Writing an article critique

3.

Writing an annotated bibliography as critique of sources

B.

Developing Rhetorical Positions in Argumentative and Analytical Formats

1.

Writing a problem solution

2.

Writing a proposal

3.

Write an expanded position essay

4.

Writing an analysis of a trend

5.

Writing an analysis of popular culture including advertisement, literature, or film

6.

Writing a movie review***Required Categories of PapersMinimum of one from each category in Roman Numeral VI.(A and B) and a total of at least three individually written papers.At least three of the revised papers should be 4-6 pages in length.

PERFORMANCE OBJECTIVES:**PERFORMANCE OBJECTIVES:**

- I. [I. Writing as a Process > A. Prewriting Strategies](#)
- I. [I.A.1 Use a variety of invention and inquiry strategies to generate ideas for writing.](#)
- I. [I.A.2 Determine an appropriate audience for a specific writing task and adapt the writing to audience's characteristics and concerns.](#)
- I. [I.A.3 Identify the purpose of various writing tasks.](#)
- I. [I.A.4 Distinguish among possible organizational approaches to plan one that is appropriate for a particular assignment.](#)
- I. [I.A.5 Utilize reading selections as a source of ideas for their own writing.](#)
- I. [I. Writing as a Process > B. Drafting](#)
- I. [I.B.1 Set and complete reasonable goals for drafting: e.g. meet deadlines, generate an adequate amount of material.](#)
- I. [I.B.2 Write papers with multiple drafts, shaping them to an appropriate audience, purpose and genre.](#)
- I. [I.B.3 Incorporate the basic features of the assigned genre or writing task into the draft.](#)
- I. [I. Writing as a Process > C. Revising](#)
- I. [I.C.1 Gain experience in reading own/peer drafts thoughtfully and critically.](#)
- I. [I.C.2 Practice revising drafts in stages and for different purposes: organization, support and development, unity, coherence, and wording and style.](#)
- I. [I.C.3 Identify major problems that keep a draft from achieving its purpose given its audience and genre.](#)
- I. [I.C.4 Apply techniques from reading selections to their own writing.](#)
- I. [I. Writing as a Process > D. Editing](#)
- I. [I.D.1 Use a style manual to edit their writing.](#)
- I. [I.D.2 Analyze elements of mechanical correctness, such as spelling, punctuation, and standard usage.](#)
- I. [I. Writing as a Process > E. Peer Response to Drafts in Progress](#)
- I. [I.E.1 Provide oral and written response to classmates writing.](#)
- I. [I.E.2 Use feedback from other students to guide changes in their own drafts.](#)

- I. I.E.3 Accept constructive criticism nondefensively as a necessary and helpful component of the writing process.
- I. II. Types of Writing > A. Reading as Inquiry
 - I. II.A.1 Prepare for closer reading by previewing and skimming text and identifying genre and rhetorical situation.
 - I. II.A.2 Interact with the written text through marking up and annotating.
 - I. II.A.3 Analyze sources for purpose, audience, intellectual level, reliability and appropriateness to the task at hand.
 - I. II.A.4 Contextualize a given text or source by placing it in historical, biographical, or cultural milieu.
 - I. II.A.5 Paraphrase and summarize source ideas accurately and without bias.
 - I. II.A.6 Make critical judgments about a text or a sources content, authorial credibility, and other challenges to a student's attitudes, beliefs, and values.
 - I. II.A.7 Examine written or visual materials from perspectives other than one's own.
- I. II. Types of Writing > B. Examining Rhetorical Patterns
 - I. II.B.1 Identify the main ideas presented by the author.
 - I. II.B.2 Analyze an argument in terms of logic, ethics, and emotion.
 - I. II.B.3 Identify organizational patterns in the rhetoric of argument
 - I. II.B.4 Critique written and visual materials giving an evaluation of the article or the visual but not the topic
- I. III. Information Literacy > A. Locating and Selecting Sources
 - I. III.A.1 Make transition to academic library sources and databases (both print and electronic) versus free internet sources
 - I. III.A.2 Use traditional secondary sources including subscription databases, books, periodicals, specialty encyclopedias, indexes, bibliographies, as well as the companion on-line and electronic versions of those types of sources.
 - I. III.A.3 Understand different types and uses of electronic databases, periodicals, and general reference information.
 - I. III.A.4 Use Boolean searches and other advanced search strategies to obtain academic sources.
- I. III. Information Literacy > B. Evaluating Sources
 - I. III.B.1 Understand the superiority and advantages for most academic research of subscription databases.

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- I. III.B.2 Analyze sources based on credibility, intellectual level, appropriateness to task at hand, and other objective criteria.
- I. IV. Utilizing Sources
- I. IV.A Integrate information from sources into a student written text through summarizing, paraphrasing, synthesizing, and quoting
- I. IV.A.1 Use a combination of paraphrase, summary, and direct quotation to present source material.
- I. IV.A.2 Write accurate and complete paraphrases that avoid any suggestion of plagiarism.
- I. IV.A.3 Use attributive tags and other conventions that facilitate smooth incorporation of source material.
- I. IV.A.4 Provide original explanatory text to elucidate and elaborate on the use of source material.
- I. IV. Utilizing Sources > B. Use accurate and appropriate documentation
- I. IV.B.1 Choose a particular format such as MLA style and use it consistently within a text.
- I. IV.B.2 Show skill in MLA style in-text and Works Cited, the recommended format for this course.
- I. IV.B.3 Understand the need to obtain the most current format for citing Internet, on-line, and electronic sources.
- I. V. Developing a Writer's Voice/Persona > A. Engage in Critical & Independent Thinking
- I. V.A.1 Base writing on original perceptions generated by close reading of text and close examination of visual material.
- I. V.A.2 Think critically about what the source is conveying and use logic and/or research to agree, disagree, or otherwise respond to the source.
- I. V. Developing a Writer's Voice/Persona > B. Developing a Rhetorical Process
- I. V.B.1 Organize source information in a meaningful way that demonstrates critical thought and planning.
- I. V.B.2 Establish rhetorical positions with a clear three-step process: create a thesis, propose reasons, and provide credible evidence.
- I. V.B.3 Identify and eliminate flaws in logic and rhetorical fallacies.
- I. V. Developing a Writer's Voice/Persona > C. Making Connections between Sources and Ideas
- I. V.C.1 Use sources as support rather than main ideas.
- I. V.C.2 Incorporate sources as a way to strengthen an argument.

- I. V.C.3 Be aware of appropriate use of different kinds of evidence such as facts, examples, testimonial, etc.
- I. V. Developing a Writer's Voice/Persona > D. Reflecting/Synthesizing
- I. V.D.1 Reflect on one's writing experiences and behaviors to determine implications for future writing.
- I. V.D.2 Gain awareness of and control over writing process.
- I. VI. Developing a Writer's Voice/Persona > A. Developing Rhetorical Positions from Critical Reading
- I. VI.A.1 Write/produce a comparison of sources or multiple source analysis essay
- I. VI.A.2 Write/produce an article critique
- I. VI.A.3 Write/produce an annotated bibliography as critique of sources
- I. VI. Developing a Writer's Voice/Persona > B. Developing Rhetorical Positions in Argumentative and Analytical Formats
- I. VI.B.1 Write/produce a problem solution essay
- I. VI.B.2 Write/produce a proposal or a grant proposal
- I. VI.B.3 Write/produce an expanded position essay
- I. VI.B.4 Write/produce an analysis of a trend
- I. VI.B.5 Write/produce an analysis of popular culture including advertisement, literature, or film
- I. VI.B.6 Write/produce a movie review

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Compliance Report

PROGRAM SUMMARIES

NUMBERS IN RED INDICATE OUT OF COMPLIANCE ELEMENT OF A PROGRAM

| College | CIP | Title | Campus | Award Type | Cr. H | Weeks | Avg Per Term | Gen Ed Cr. H | Gen Ed Categ. | % Tech Core | Tech Core Cr. H |
|---------|------------|--|--------|------------|-------|-------|--------------|--------------|---------------|-------------|-----------------|
| 01 | 0101020200 | AGRICULTURE BUSINESS | N/A | AAS | 68 | 76 | 13.6 | 12 | 3 | 77.9% | 53 |
| 01 | 0101020200 | Agriculture Finance Certificate | N/A | Cert1 | 21 | 32 | 10.5 | 0 | 0 | 100.0% | 21 |
| 01 | 0101020200 | Agriculture Office Technician Certificate | N/A | Cert2 | 21 | 32 | 10.5 | 0 | 0 | 100.0% | 21 |
| 01 | 0101020200 | Agronomy Custom Application Certificate | N/A | Cert3 | 20 | 48 | 6.7 | 0 | 0 | 100.0% | 20 |
| 01 | 0101020200 | Crop Advisor Certificate | N/A | Cert4 | 20 | 44 | 6.7 | 0 | 0 | 100.0% | 20 |
| 01 | 0101020200 | Precision Agriculture | N/A | Cert5 | 21 | 32 | 10.5 | 0 | 0 | 100.0% | 21 |
| 01 | 0102041200 | John Deere TECH | N/A | AAS | 78 | 76 | 15.6 | 12 | 3 | 80.8% | 63 |
| 01 | 0103010200 | AGRICULTURE PRODUCTION | N/A | AAS | 64 | 68 | 12.8 | 12 | 3 | 81.3% | 52 |
| 01 | 0103010200 | APPLIED AGRICULTURE STUDIES DIPLOMA OPTION | N/A | Dipl1 | 41.5 | 44 | 13.8 | 6 | 3 | 79.5% | 33 |
| 01 | 0103010200 | Swine Production | N/A | Cert2 | 9 | 32 | 4.5 | 3 | 1 | 66.7% | 6 |
| 01 | 0103020200 | BEEF SCIENCE TECHNOLOGY | N/A | AAS | 74 | 76 | 14.8 | 12 | 3 | 79.7% | 59 |
| 01 | 0103060200 | DAIRY SCIENCE TECHNOLOGY | N/A | AAS | 76 | 76 | 15.2 | 12 | 3 | 80.3% | 61 |
| 01 | 1003030200 | GRAPHIC DESIGN | N/A | AAS | 72 | 76 | 14.4 | 18 | 3 | 79.2% | 57 |
| 01 | 1102020200 | Computer Analyst - Networking Administration and Tech Support Option | N/A | AAS | 69 | 80 | 13.8 | 12 | 3 | 78.3% | 54 |
| 01 | 1102020200 | Computer Analyst - Business and Web Programming | N/A | AAS1 | 65 | 76 | 13.0 | 12 | 3 | 76.9% | 50 |
| 01 | 1102020200 | Information Security Certificate | N/A | Cert2 | 21 | 48 | 7.0 | 0 | 0 | 100.0% | 21 |
| 01 | 1102020200 | Mobile Application Development | N/A | Cert3 | 21 | 32 | 10.5 | 0 | 0 | 100.0% | 21 |
| 01 | 1102020200 | Data Center Technician | N/A | Cert4 | 10 | 32 | 5.0 | 0 | 0 | 100.0% | 10 |
| 01 | 1109010200 | Computer Technology, Networking, and Programming | N/A | AAS | 73 | 64 | 18.3 | 15 | 3 | 75.3% | 55 |
| 01 | 1204010200 | COSMETOLOGY | N/A | AAS | 75.5 | 60 | 18.9 | 12 | 3 | 80.1% | 60.5 |
| 01 | 1508050200 | Engineering Technology | N/A | AAS | 67.5 | 76 | 13.5 | 20 | 3 | 65.9% | 44.5 |
| 01 | 1513011000 | CAD SPECIALIST | N/A | Cert | 11.5 | 32 | 5.8 | 0 | 0 | 87.0% | 10 |

| | | | | | | | | | | | |
|----|------------|---|-----|-------|-------|----|------|----|---|--------|-------|
| 01 | 1907090100 | EARLY CHILDHOOD | N/A | Dipl | 31 | 32 | 15.5 | 3 | 1 | 80.6% | 25 |
| 01 | 1907090100 | Early Childhood Education Certificate | N/A | Cert1 | 12 | 32 | 6.0 | 0 | 0 | 100.0% | 12 |
| 01 | 2203020200 | Legal Assistant | N/A | AAS | 65 | 64 | 16.3 | 15 | 3 | 76.9% | 50 |
| 01 | 4302030200 | FIREFIGHTING SPECIALIST | N/A | AAS | 66 | 60 | 16.5 | 22 | 3 | 62.1% | 41 |
| 01 | 4600000200 | Construction Technology | N/A | AAS | 80 | 76 | 16.0 | 15 | 3 | 73.8% | 59 |
| 01 | 4600000200 | Carpentry Cabinet Making Certificate | N/A | Cert1 | 5 | 16 | 5.0 | 0 | 0 | 100.0% | 5 |
| 01 | 4600000200 | Carpentry Finishing Skills Certificate | N/A | Cert2 | 13.5 | 16 | 13.5 | 0 | 0 | 100.0% | 13.5 |
| 01 | 4600000200 | Carpentry Floor and Framing Skills Certificate | N/A | Cert3 | 13.5 | 16 | 13.5 | 0 | 0 | 100.0% | 13.5 |
| 01 | 4600000200 | Carpentry Foundation Skills Certificate | N/A | Cert4 | 10.5 | 12 | 10.5 | 0 | 0 | 100.0% | 10.5 |
| 01 | 4602010100 | CARPENTRY | N/A | Dipl | 48 | 44 | 16.0 | 6 | 2 | 81.3% | 39 |
| 01 | 4603020100 | COMMERCIAL RESIDENTIAL ELECTRICIAN | N/A | Dipl | 48 | 44 | 16.0 | 7 | 2 | 79.2% | 38 |
| 01 | 4603020200 | INDUSTRIAL ELECTRICIAN | N/A | AAS | 73 | 64 | 18.3 | 14 | 3 | 76.7% | 56 |
| 01 | 4605031100 | GAS UTILITY CONSTRUCTION AND SERVICE | N/A | Dipl | 46 | 44 | 15.3 | 6 | 2 | 80.4% | 37 |
| 01 | 4702010100 | HEATING AND AIR CONDITIONING | N/A | Dipl | 43.5 | 44 | 14.5 | 6 | 2 | 79.3% | 34.5 |
| 01 | 4703030200 | Industrial Maintenance Technician | N/A | AAS | 68 | 64 | 17.0 | 15 | 3 | 69.1% | 47 |
| 01 | 4703030200 | Industrial Maintenance Technician | N/A | Dipl1 | 36 | 32 | 18.0 | 6 | 2 | 75.0% | 27 |
| 01 | 4706040100 | AUTOMOTIVE MECHANICS | N/A | Dipl | 48 | 44 | 16.0 | 6 | 2 | 81.3% | 39 |
| 01 | 4706040200 | AUTOMOTIVE TECHNOLOGY | N/A | AAS | 74 | 64 | 18.5 | 12 | 3 | 79.7% | 59 |
| 01 | 4706050100 | DIESEL MECHANICS | N/A | Dipl | 48 | 44 | 16.0 | 6 | 2 | 79.2% | 38 |
| 01 | 4805010100 | Computerized Numerical Control (CNC) Machinist Technician | N/A | Dipl | 44.5 | 44 | 14.8 | 6 | 2 | 73.0% | 32.5 |
| 01 | 4805080100 | WELDING | N/A | Dipl | 37 | 32 | 18.5 | 6 | 2 | 75.7% | 28 |
| 01 | 5106010100 | DENTAL ASSISTING | N/A | Dipl | 45.25 | 44 | 15.1 | 6 | 3 | 80.1% | 36.25 |
| 01 | 5107070200 | HEALTH INFORMATION TECHNOLOGY | N/A | AAS | 70 | 76 | 14.0 | 14 | 3 | 71.4% | 50 |
| 01 | 5108010100 | Medical Assistant | N/A | Dipl | 41.5 | 44 | 13.8 | 6 | 2 | 78.3% | 32.5 |

| | | | | | | | | | | | |
|----|------------|--|-----|-------|-------|----|------|----|---|--------|-------|
| 01 | 5108080200 | LARGE ANIMAL VETERINARY TECHNICIAN | N/A | AAS | 72 | 76 | 14.4 | 20 | 3 | 68.1% | 49 |
| 01 | 5108080200 | Veterinary Assistant | N/A | Cert1 | 22 | 32 | 11.0 | 0 | 0 | 100.0% | 22 |
| 01 | 5109046200 | PARAMEDIC | N/A | AAS | 64 | 60 | 16.0 | 22 | 3 | 65.6% | 42 |
| 01 | 5109046200 | Paramedic Diploma | N/A | Dipl1 | 48 | 44 | 16.0 | 6 | 2 | 87.5% | 42 |
| 01 | 5109080200 | RESPIRATORY CARE | N/A | AAS | 81.5 | 76 | 13.6 | 17 | 3 | 72.3% | 56 |
| 01 | 5109090100 | Surgical Technology | N/A | Dipl | 44.5 | 44 | 11.1 | 8 | 2 | 79.7% | 31.5 |
| 01 | 5109110200 | RADIOLOGIC TECHNOLOGY | N/A | AAS | 84.5 | 88 | 12.1 | 12 | 3 | 79.7% | 59 |
| 01 | 5110040200 | MEDICAL LABORATORY TECHNICIAN | N/A | AAS | 80 | 88 | 13.3 | 25 | 3 | 68.8% | 55 |
| 01 | 5138010200 | ASSOCIATE DEGREE NURSING | N/A | AAS | 82 | 76 | 13.7 | 19 | 3 | 69.0% | 49 |
| 01 | 5139010100 | PRACTICAL NURSING | N/A | Dipl | 42.75 | 32 | 14.3 | 6 | 2 | 71.7% | 22.75 |
| 01 | 5202010200 | BUSINESS SPECIALIST | N/A | AAS | 68 | 64 | 17.0 | 19 | 3 | 67.6% | 46 |
| 01 | 5202010200 | Applied Management | N/A | AAS1 | 68 | 48 | 17.0 | 16 | 3 | 59.6% | 28 |
| 01 | 5203010200 | ACCOUNTING SPECIALIST | N/A | AAS | 67 | 64 | 16.8 | 15 | 3 | 71.6% | 48 |
| 01 | 5203020100 | ACCOUNTING CLERK | N/A | Dipl | 32 | 32 | 16.0 | 6 | 2 | 71.9% | 23 |
| 01 | 5204010200 | ADMINISTRATIVE OFFICE MANAGEMENT | N/A | AAS | 65 | 64 | 16.3 | 12 | 3 | 76.9% | 50 |
| 01 | 5204010200 | ADMINISTRATIVE OFFICE ASSOCIATE | N/A | Dipl1 | 38 | 44 | 12.7 | 3 | 1 | 84.2% | 32 |
| 01 | 5208010200 | Finance | N/A | AAS | 65 | 64 | 16.3 | 18 | 3 | 63.1% | 41 |
| 01 | 5208010200 | Agriculture Finance | N/A | AAS1 | 66 | 64 | 16.5 | 18 | 3 | 63.6% | 42 |
| 01 | 5218010200 | MARKETING MANAGEMENT | N/A | AAS | 74 | 76 | 14.8 | 16 | 3 | 73.0% | 54 |
| 01 | 5218030100 | Construction Business Management | N/A | Dipl | 44 | 44 | 14.7 | 6 | 2 | 79.5% | 35 |

Program Comparison Report

[View Printable Version](#)

Previous Report

| IVCCD 06 4805070200 Tool and Die Technology/Technician. | | | | | | | | | | |
|---|---------|----------------|--|-----------------|-------|-------------------|------|--------|--------|-----------------|
| CAMPUS N/A | | | | | | | | | | |
| Type of Award: AAS MACHINE TOOL TECHNOLOGY (MVTLD) | | | | | | | | | | |
| ITSO 03 02 11 03 | | CONTACT HOURS | | | | | | | | |
| Credits | Lecture | Lab | Clinic | Work | Alt | Gen | Foot | ContHr | CredHr | |
| | | | | | | | | | | |
| TERM 1 | | | | | | | | | | |
| 1 | ENG | 111 | Technical Writing | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | C | 3.30 |
| 2 | MAT | 790 | Shop Math | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | S | 3.30 |
| 3 | IND | 110 | * CPR, First Aid and Safety | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | | 1.10 |
| 4 | MFG | 101 | * Measuring Tools | 1.50 | 39.01 | 11.15 | 0.00 | 0.00 | | 2.80 |
| 5 | MFG | 121 | * Machine Trade Printreading I | 2.00 | 40.13 | 0.00 | 0.00 | 0.00 | | 2.50 |
| 6 | MFG | 255 | * Engine Lathe Operations | 5.00 | 27.86 | 139.33 | 0.00 | 0.00 | | 6.10 |
| 7 | MFG | 262 | * Mill Operations Theory | 3.00 | 17.60 | 88.00 | 0.00 | 0.00 | | 3.90 |
| 8 | MFG | 275 | * Hand and Bench Machine Tools | 1.00 | 11.15 | 22.30 | 0.00 | 0.00 | | 1.40 |
| 9 | MFG | 280 | * Drill Presses | 1.50 | 35.20 | 17.60 | 0.00 | 0.00 | | 2.80 |
| Term Total | | | | 21.00 | | | | | | |
| TERM 2 | | | | | | | | | | |
| 10 | MAT | 791 | Shop Math H | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | S | 1.10 |
| 11 | MFG | 282 | * CNC Plasma Table | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | 1.10 |
| 12 | MFG | 131 | * Machine Trade Printreading II | 2.00 | 35.20 | 0.00 | 0.00 | 0.00 | | 2.20 |
| 13 | MFG | 314 | * Advanced Machining Operations | 5.00 | 0.00 | 176.00 | 0.00 | 0.00 | | 5.50 |
| 14 | MFG | 200 | * Electric Discharge Machine (EDM) | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | 1.10 |
| 15 | MFG | 270 | * Grinders Theory | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | 1.20 |
| 16 | MFG | 322 | * Introduction to CAD/CAM | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | 3.30 |
| 17 | MFG | 353 | * CNC Lathe Fundamentals | 2.50 | 17.60 | 70.40 | 0.00 | 0.00 | | 3.30 |
| 18 | MFG | 357 | * CNC Mill | 3.50 | 22.00 | 70.40 | 0.00 | 0.00 | | 3.60 |
| 19 | WEL | 116 | * General Welding | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | 1.20 |
| Term Total | | | | 21.00 | | | | | | |
| TERM 3 | | | | | | | | | | |
| 20 | MFG | 407 | * Basic Die Making | 7.00 | 52.80 | 206.21 | 0.00 | 0.00 | | 9.70 |
| 21 | MFG | 425 | * Jig and Fixtures | 6.00 | 11.79 | 187.79 | 0.00 | 0.00 | | 6.60 |
| 22 | ART | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | M H + | 3.30 |
| 23 | ASL | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A + | 3.30 |
| 24 | CLS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 25 | DRA | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 26 | FLS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 27 | HIS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 28 | LIT | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 29 | MUS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 30 | PHI | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 31 | REL | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 32 | SOC | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 33 | PSY | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 34 | POL | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 35 | HIS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 36 | GEO | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 37 | EDU | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A + | 3.30 |
| 38 | ECN | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 39 | ANT | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| 40 | PSY | 212 | Psych. of Human and Work Relations | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H + | 3.30 |
| Term Total | | | | 16.00 | | | | | | |
| TERM 4 | | | | | | | | | | |
| 41 | CHM | 103 | Metallurgy | 2.00 | 35.20 | 0.00 | 0.00 | 0.00 | S | 2.20 |
| 42 | MFG | 418 | * Advanced Die Making | 9.00 | 52.80 | 222.93 | 0.00 | 0.00 | | 10.30 |
| 43 | MFG | 456 | * Injection Moldmaking | 6.00 | 35.20 | 178.35 | 0.00 | 0.00 | | 7.80 |
| Term Total | | | | 17.00 | | | | | | |
| Program Total | | | | 75.00 | | | | | | |

| | | | | | | | | | |
|--|--|---------------|--|--|--|--|--|--|--|
| CAMPUS N/A | | | | | | | | | |
| Type of Award: Dipl MACHINE TOOL TECHNOLOGY | | | | | | | | | |
| | | CONTACT HOURS | | | | | | | |

Current Report

| IVCCD 06 4805070200 Tool and Die Technology/Technician. | | | | | | | | | | |
|---|---------|---------------|---|--------------|-------|--------|------|--------|--------|--|
| CAMPUS N/A | | | | | | | | | | |
| A student who has completed the 10-month Machine Trades Practitioner program (or work experience or educational background) may elect to continue in the Tool & Die O additional two semesters. This additional training will provide skills for working in the | | | | | | | | | | |
| Upon satisfactory completion of coursework and a minimum GPA of 2.0, graduates of t transfer up to 64 credits from MCC toward a BA degree from the University of Norther of vocational credit already transfer to the Iowa Regent schools. | | | | | | | | | | |
| ITSO 03 02 11 03 | | CONTACT HOURS | | | | | | | | |
| Credits | Lecture | Lab | Clinic | Work | Alt | Gen | Foot | ContHr | CredHr | |
| | | | | | | | | | | |
| TERM 1 | | | | | | | | | | |
| 1 | ENG | 111 | Technical Writing | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | |
| 2 | MAT | 790 | Shop <u>Mathematics</u> | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | |
| 3 | IND | 110 | * CPR, First Aid and Safety | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | | |
| 4 | MFG | 101 | * Measuring Tools | 1.50 | 39.01 | 11.15 | 0.00 | 0.00 | | |
| 5 | MFG | 121 | * Machine Trade Printreading I | 2.00 | 40.13 | 0.00 | 0.00 | 0.00 | | |
| 6 | MFG | 255 | * Engine Lathe Operations | 5.00 | 27.86 | 139.33 | 0.00 | 0.00 | | |
| 7 | MFG | 262 | * Mill Operations Theory | 3.00 | 17.60 | 88.00 | 0.00 | 0.00 | | |
| 8 | MFG | 275 | * Hand & Bench Machine Tools <u>Hand & Bench Machine Tools</u> | 1.00 | 11.15 | 22.30 | 0.00 | 0.00 | | |
| 9 | MFG | 280 | * Drill Presses | 1.50 | 35.20 | 17.60 | 0.00 | 0.00 | | |
| Term Total | | | | 21.00 | | | | | | |
| TERM 2 | | | | | | | | | | |
| 10 | MAT | 791 | Shop <u>Mathematics II</u> | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | | |
| 11 | MFG | 282 | * CNC Plasma Table | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | |
| 12 | MFG | 131 | * Machine Trade Printreading II | 2.00 | 35.20 | 0.00 | 0.00 | 0.00 | | |
| 13 | MFG | 200 | * Electric Discharge Machine (EDM) | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | |
| 14 | MFG | 270 | * Grinders Theory | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | |
| 15 | MFG | 322 | * Introduction to CAD/CAM | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | |
| 16 | MFG | 353 | * CNC Lathe <u>CNC Lathe</u> | 2.50 | 17.60 | 70.40 | 0.00 | 0.00 | | |
| 17 | MFG | 357 | * CNC Mill | 3.50 | 22.00 | 70.40 | 0.00 | 0.00 | | |
| 18 | WEL | 116 | * General Welding | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | |
| Term Total | | | | 16.00 | | | | | | |
| TERM 3 | | | | | | | | | | |
| <u>19</u> | MFG | 407 | * Basic Die Making <u>Basic Die Making</u> | 7.00 | 52.80 | 206.21 | 0.00 | 0.00 | | |
| 20 | MFG | 425 | * Jig and Fixtures | 6.00 | 11.79 | 187.79 | 0.00 | 0.00 | | |
| 21 | ART | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | M | |
| 22 | ASL | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A | |
| 23 | CLS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 24 | DRA | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 25 | FLS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 26 | HIS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 27 | LIT | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 28 | MUS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 29 | PHI | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 30 | REL | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 31 | SOC | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 32 | PSY | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 33 | POL | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 34 | HIS | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 35 | GEO | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 36 | EDU | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 37 | ECN | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 38 | ANT | XXX | Elective | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| 39 | PSY | 212 | Psych. of Human and Work Relations | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | A H | |
| Term Total | | | | 16.00 | | | | | | |
| TERM 4 | | | | | | | | | | |
| <u>40</u> | CHM | 103 | Metallurgy | 2.00 | 35.20 | 0.00 | 0.00 | 0.00 | | |
| 41 | MFG | 418 | * Advanced Die Making <u>Advanced Die Making</u> | 9.00 | 52.80 | 222.93 | 0.00 | 0.00 | | |
| 42 | MFG | 456 | * Injection Mold Making <u>Injection Mold Making</u> | 6.00 | 35.20 | 178.35 | 0.00 | 0.00 | | |
| Term Total | | | | 17.00 | | | | | | |

| ITSO 03 02 11 03 | TRADES PRACTITIONER (MVMCH) | Credits | | | | | Alt | Gen Ed | Foot Note | ContHr / CredHr |
|------------------|-----------------------------|---------|---------|-----|--------|------|-----|--------|-----------|-----------------|
| | | | Lecture | Lab | Clinic | Work | | | | |

| TERM 1 | | | | | | | | | | |
|------------|-----|-------|--|--------------|-------|--------|------|------|---|------|
| 1 | ENG | 111 | Technical Writing | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | C | 3.30 |
| 2 | MAT | 790 | Shop Mathematics | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | S | 3.30 |
| 3 | IND | 110 * | CPR, First Aid and Safety | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | | 1.10 |
| 4 | MFG | 101 * | Measuring Tools | 1.50 | 39.01 | 11.15 | 0.00 | 0.00 | | 2.80 |
| 5 | MFG | 121 * | Machine Trade | 2.00 | 40.13 | 0.00 | 0.00 | 0.00 | | 2.50 |
| 6 | MFG | 255 * | Printreading I | 5.00 | 27.86 | 139.33 | 0.00 | 0.00 | | 6.10 |
| 7 | MFG | 262 * | Engine Lathe Operations | 3.00 | 17.60 | 88.00 | 0.00 | 0.00 | | 3.90 |
| 8 | MFG | 275 * | Mill Operations Theory | 1.00 | 11.15 | 22.30 | 0.00 | 0.00 | | 1.40 |
| 9 | MFG | 280 * | Hand and Bench Machine Tools Drill Presses | 1.50 | 35.20 | 17.60 | 0.00 | 0.00 | | 2.80 |
| Term Total | | | | 21.00 | | | | | | |

| TERM 2 | | | | | | | | | | |
|---------------|-----|-------|---|-----------------|-------|-------------------|------|------|---|-----------------|
| 10 | MAT | 791 | Shop Mathematics II | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | S | 1.10 |
| 11 | MFG | 131 * | Machine Trade | 2.00 | 35.20 | 0.00 | 0.00 | 0.00 | | 2.20 |
| 12 | MFG | 200 * | Printreading II | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | 1.10 |
| 13 | MFG | 270 * | Electric Discharge Machine (EDM) | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | 1.20 |
| 14 | MFG | 322 * | Grinders Theory | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | 3.30 |
| 15 | MFG | 353 * | Introduction to CAD/CAM | 2.50 | 17.60 | 70.40 | 0.00 | 0.00 | | 3.30 |
| 16 | MFG | 357 * | CNC Lathe Fundamentals CNC Mill | 3.50 | 22.00 | 70.40 | 0.00 | 0.00 | | 3.60 |
| 17 | WEL | 116 * | General Welding | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | 1.20 |
| 18 | MFG | 282 * | CNC Plasma Table | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | 1.10 |
| 19 | MFG | 314 * | Advanced Machining Operations Advanced Machining Operations | 5.00 | 0.00 | 176.00 | 0.00 | 0.00 | | 5.50 |
| Term Total | | | | 21.00 | | | | | | |
| Program Total | | | | 42.00 | | | | | | |

Footnotes

~~1 - Only social science, humanities, or PSY212 can be used to meet this requirement.~~

| SUMMARY | | | | | | |
|-------------------------------------|------------------|---------|--------------------|----------|----------|--------------------|
| AAS MACHINE TOOL TECHNOLOGY (MVTLD) | | | | | | |
| Term | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 21.00 | 294.15 | 278.38 | 0.00 | 0.00 | 572.53 |
| Term 2 | 21.00 | 173.82 | 407.84 | 0.00 | 0.00 | 581.66 |
| Term 3 | 16.00 | 117.39 | 394.00 | 0.00 | 0.00 | 511.39 |
| Term 4 | 17.00 | 123.20 | 401.28 | 0.00 | 0.00 | 524.48 |
| GRAND TOTAL | 75.00 | 708.56 | 1481.50 | 0.00 | 0.00 | 2190.06 |

| SUMMARY | | | | | | |
|---|------------------|---------|-------------------|----------|----------|--------------------|
| Dipl1 MACHINE TOOL TECHNOLOGY TRADES PRACTITIONER (MVMCH) | | | | | | |
| Term | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 21.00 | 294.15 | 278.38 | 0.00 | 0.00 | 572.53 |
| Term 2 | 21.00 | 173.82 | 407.84 | 0.00 | 0.00 | 581.66 |
| GRAND TOTAL | 42.00 | 467.97 | 686.22 | 0.00 | 0.00 | 1154.19 |

Contact:

Submitted: 07/31/2012 Approved by Advisory Committee: 09/28/2011

Implementation Begins: 08/15/2012 Approved by DOE: 08/30/2012

Updated contact title. MVTLD AAS: 1) Replaced MFG233 with MFG200. 2) Replaced MFG358 with MFG357. 3) Added MFG282 and MFG314 to term 2. 4) Replaced PEHXXX with CHM103. MVMCH Dipl1: 1) Replaced MFG233 with MFG200. 2) Replaced MFG358 with MFG357. 3) Added MFG282 and MFG314 to term 2. 4) Removed footnote 2.

Program Total **70.00**

CAMPUS N/A
Machine Trades Practitioner prepares students for employment as machinists. Individuals continue their training by taking the second year Tool & Die Option program to become

The program consists of 10 months of training with a new class beginning each fall. At least 17 years of age and will be evaluated on the basis of their application form, personal educational experience, and pre-entrance tests as needed. Like all dynamic curricula, re-changed from date of publication; before registering for Machine Trades or Tool and Die should visit with the instructor.

| Type of Award: MACHINE TOOL TECHNOLOGY TRADES PRACTITIONER (MVMCH) | | CONTACT HOURS | | | |
|--|--|---------------|-----|--------|------|
| Dipl1 | | Lecture | Lab | Clinic | Work |

ITSO 03 02 11 03 Credits

| TERM 1 | | | | | | | | | | |
|------------|-----|-------|---------------------------|--------------|-------|--------|------|------|--|--|
| 1 | ENG | 111 | Technical Writing | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | |
| 2 | MAT | 790 | Shop Mathematics | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | |
| 3 | IND | 110 * | CPR, First Aid and Safety | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | | |
| 4 | MFG | 101 * | Measuring Tools | 1.50 | 39.01 | 11.15 | 0.00 | 0.00 | | |
| 5 | MFG | 121 * | Machine Trade | 2.00 | 40.13 | 0.00 | 0.00 | 0.00 | | |
| 6 | MFG | 255 * | Printreading I | 5.00 | 27.86 | 139.33 | 0.00 | 0.00 | | |
| 7 | MFG | 262 * | Engine Lathe Operations | 3.00 | 17.60 | 88.00 | 0.00 | 0.00 | | |
| 8 | MFG | 275 * | Mill Operations Theory | 1.00 | 11.15 | 22.30 | 0.00 | 0.00 | | |
| 9 | MFG | 280 * | Drill Presses | 1.50 | 35.20 | 17.60 | 0.00 | 0.00 | | |
| Term Total | | | | 21.00 | | | | | | |

| TERM 2 | | | | | | | | | | |
|---------------|-----|-------|----------------------------------|--------------|-------|-------|------|------|--|--|
| 10 | MAT | 791 | Shop Mathematics II | 1.00 | 17.60 | 0.00 | 0.00 | 0.00 | | |
| 11 | MFG | 131 * | Machine Trade | 2.00 | 35.20 | 0.00 | 0.00 | 0.00 | | |
| 12 | MFG | 200 * | Printreading II | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | |
| 13 | MFG | 270 * | Electric Discharge Machine (EDM) | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | |
| 14 | MFG | 322 * | Grinders Theory | 3.00 | 52.80 | 0.00 | 0.00 | 0.00 | | |
| 15 | MFG | 353 * | Introduction to CAD/CAM | 2.50 | 17.60 | 70.40 | 0.00 | 0.00 | | |
| 16 | MFG | 357 * | CNC Mill | 3.50 | 22.00 | 70.40 | 0.00 | 0.00 | | |
| 17 | WEL | 116 * | General Welding | 1.00 | 5.51 | 27.92 | 0.00 | 0.00 | | |
| 18 | MFG | 282 * | CNC Plasma Table | 1.00 | 8.80 | 17.60 | 0.00 | 0.00 | | |
| Term Total | | | | 16.00 | | | | | | |
| Program Total | | | | 37.00 | | | | | | |

Footnotes

| SUMMARY | | | | | | |
|-------------------------------------|--------------|---------|-----------------------------------|----------|----------|-----------------------------------|
| AAS MACHINE TOOL TECHNOLOGY (MVTLD) | | | | | | |
| Term | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 21.00 | 294.15 | 278.38 | 0.00 | 0.00 | 572.53 |
| Term 2 | 16.00 | 173.82 | 407.84 231.84 | 0.00 | 0.00 | 581.66 405.66 |
| Term 3 | 16.00 | 117.39 | 394.00 | 0.00 | 0.00 | 511.39 |
| Term 4 | 17.00 | 123.20 | 401.28 | 0.00 | 0.00 | 524.48 |
| GRAND TOTAL | 70.00 | 708.56 | 1481.50 1305.50 | 0.00 | 0.00 | 2190.06 2014.06 |

| SUMMARY | | | | | | |
|---|-------------------------------|---------|---------------------------------|----------|----------|----------------------------------|
| Dipl1 MACHINE TOOL TECHNOLOGY TRADES PRACTITIONER (MVMCH) | | | | | | |
| Term | Cr H | Lecture | Lab | Clinical | Work Exp | Total Contact Hrs |
| Term 1 | 21.00 | 294.15 | 278.38 | 0.00 | 0.00 | 572.53 |
| Term 2 | 21.00 16.00 | 173.82 | 407.84 231.84 | 0.00 | 0.00 | 581.66 405.66 |
| GRAND TOTAL | 37.00 | 467.97 | 686.22 510.22 | 0.00 | 0.00 | 1154.19 978.19 |

Contact: Kennedy, Patrick., Patrick.Kennedy@javalley.edu

Submitted: 03/29/2018 Approved by Advisory Committee: 08/15/2018

Implementation Begins: 08/15/2018 Approved by DOE: 08/15/2018

We would like to remove MFG 314 Advanced Machining Operations from the Machine Trades Practitioner Diploma and the Machine Tool Technology Tool & Die AAS Degree class will no longer be a program requirement for either credential.

Program Comparison Report Side-by-Side

[View Printable Version](#)

Previous Report

Modify Program-TECHNICAL

Sch 9907 Cip 48.05010200 SS Award AAS
 SN: Machine Tool Technology/Machinist. LN: CNC Machining & Tool-Making Technology

PROGRAM OF STUDY

CNC Machining & Tool-Making Technology Associate of Applied Sciences

The CNC Machining and Tool-Making Technology program provides students with the entry-level skills to become a general machinist, a CNC operator or programmer, or a tool-maker. During the second year, students gain hand-on experience in tool-making, die building, mold making, jig and fixture building, tool room machining, and basic design skills. They are also introduced to manual and coordinate-measuring machine (CMM) inspection. Upon completion of the two-year program, students earn an Associate of Applied Science degree.

During the first year, students have the opportunity to complete various levels of this program to meet our rising local need. They gain experience with basic machining on manual and computer-numerical control (CNC) machines, computer-aided drafting (CAD) and computer-aided machining (CAM) programming, lathes, mills, and electrical-discharges machines (EDM). Students can earn a [diploma in CNC Machining Technology](#), a [certificate as a CNC Machine Operator](#), or a [certificate as a CNC Machine Set-Up Specialist](#).

CNC Machining & Tool-Making Technology (AAS)

| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| MFG122 | Machine Trade Printreading I | 48 | 0 | | 0 | 0-N/A | 3 |
| MFG157 8WK1 | Intro to CNC Programming I | 32 | 0 | | 0 | 0-N/A | 2 |
| MFG158 8WK2 | Intro to CNC Programming II | 32 | 0 | | 0 | 0-N/A | 2 |
| MFG302 | CNC Fundamentals | 0 | 96 | | 0 | 0-N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | 0 | | 0 | 0-N/A | 2 |
| MFG222 | Machine Operations I | 0 | 128 | | 0 | 0-N/A | 4 |
| MAT772 | Applied Math OR | 48 | 0 | | 0 | 0-N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | 0 | | 0 | 0-N/A | 3 |
| MAT122 | College Algebra OR | 80 | 0 | | 0 | 0-N/A | 5 |
| MAT128 | Precalculus OR | 64 | 0 | | 0 | 0-N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | 0 | | 0 | 0-N/A | 3 |
| MAT156 | Statistics OR | 48 | 0 | | 0 | 0-N/A | 3 |
| MAT210 | Calculus I OR | 64 | 0 | | 0 | 0-N/A | 4 |
| MAT216 | Calculus II OR | 64 | 0 | | 0 | 0-N/A | 4 |
| MAT219 | Calculus III | 64 | 0 | | 0 | 0-N/A | 4 |
| TOTAL CREDITS | | | | | | | 19 |

Program Units 19

| Term 2 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| MFG142 | Geometric Dimensioning Toler. | 48 | 0 | | 0 | 0-N/A | 3 |
| MFG214 | Advanced Machine Theory | 32 | 0 | | 0 | 0-N/A | 2 |
| MFG228 | Machine Operations II | 0 | 128 | | 0 | 0-N/A | 4 |
| MFG335 | CNC Operations | 0 | 96 | | 0 | 0-N/A | 3 |
| MFG309 | CNC Programming Theory II | 64 | 0 | | 0 | 0-N/A | 4 |
| COM781 | Written Communication in the Workplace OR | 48 | 0 | | 0 | 0-N/A | 3 |
| ENG105 | Composition I | 48 | 0 | | 0 | 0-N/A | 3 |
| TOTAL CREDITS | | | | | | | 19 |

Current Report

Modify Program-TECHNICAL

Sch 9907 Cip 48.05010200 SS Award AAS
 SN: Machine Tool Technology/Machinist. LN: CNC Machining & Tool-Making Technology

PROGRAM OF STUDY

CNC Machining & Tool-Making Technology Associate of Applied Sciences

The CNC Machining and Tool-Making Technology program provides students with the entry-level skills to become a general machinist, a CNC operator or programmer, or a tool-maker. During the second year, students gain hand-on experience in tool-making, die building, mold making, jig and fixture building, tool room machining, and basic design skills. They are also introduced to manual and coordinate-measuring machine (CMM) inspection. Upon completion of the two-year program, students earn an Associate of Applied Science degree.

During the first year, students have the opportunity to complete various levels of this program to meet our rising local need. They gain experience with basic machining on manual and computer-numerical control (CNC) machines, computer-aided drafting (CAD) and computer-aided machining (CAM) programming, lathes, mills, and electrical-discharges machines (EDM). Students can earn a [diploma in CNC Machining Technology](#), a [certificate as a CNC Machine Operator](#), or a [certificate as a CNC Machine Set-Up Specialist](#).

CNC Machining & Tool-Making Technology (AAS)

| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| MFG122 | Machine Trade Printreading I | 48 | | | | N/A | 3 |
| MFG157 8WK1 | Intro to CNC Programming I | 32 | | | | N/A | 2 |
| MFG158 8WK2 | Intro to CNC Programming II | 32 | | | | N/A | 2 |
| MFG302 | CNC Fundamentals | | 96 | | | N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | | | | N/A | 2 |
| MFG222 | Machine Operations I | | 128 | | | N/A | 4 |
| MAT772 | Applied Math OR | 48 | | | | N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | | | | N/A | 3 |
| MAT122 | College Algebra OR | 80 | | | | N/A | 5 |
| MAT128 | Precalculus OR | 64 | | | | N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | | | | N/A | 3 |
| MAT156 | Statistics OR | 48 | | | | N/A | 3 |
| MAT210 | Calculus I OR | 64 | | | | N/A | 4 |
| MAT216 | Calculus II OR | 64 | | | | N/A | 4 |
| MAT219 | Calculus III | 64 | | | | N/A | 4 |
| TOTAL CREDITS | | | | | | | 19 |

Program Units 19

| Term 2 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| MFG142 | Geometric Dimensioning Toler. | 48 | | | | N/A | 3 |
| MFG214 | Advanced Machine Theory | 32 | | | | N/A | 2 |
| MFG228 | Machine Operations II | | 128 | | | N/A | 4 |
| MFG335 | CNC Operations | | 96 | | | N/A | 3 |
| MFG309 | CNC Programming Theory II | 64 | | | | N/A | 4 |
| COM781 | Written Communication in the Workplace OR | 48 | | | | N/A | 3 |
| ENG105 | Composition I | 48 | | | | N/A | 3 |
| TOTAL CREDITS | | | | | | | 19 |

| Program Units 38 | | | | | | | |
|----------------------|---|---------|-------|-------|----------|-------|----------|
| Term 3 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG364 | Hydraulic Jigs and Fixtures | 16 | 96 | | | 0-N/A | 4 |
| MFG320 | Computer Aided Machining | 32 | 32 | | | 0-N/A | 3 |
| MFG380 | EDM Fundamentals | 16 | 32 | | | 0-N/A | 2 |
| TOTAL CREDITS | | | | | | | 9 |

| Program Units 47 | | | | | | | |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| Term 4 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG410 | CAD Die Design | 32 | 48 | 48 | | 0-N/A | 3 |
| WEL402 | Tool Steel Welding and Heat Treatment | 16 | 32 | | | 0-N/A | 2 |
| MFG408 | Basic Diemaking | 32 | 192 | | | 0-N/A | 8 |
| SPC101 | Fundamentals of Oral Communication | 48 | | | | 0-N/A | 3 |
| TOTAL CREDITS | | | | | | | 16 |

| Program Units 63 | | | | | | | |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| Term 5 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG107 | Intro to 3D Modeling | 16 | 64 | | | 0-N/A | 3 |
| MFG525 | CMM Inspection & SPC | 16 | 64 | | | 0-N/A | 3 |
| MFG431 | Die Revision and Repair | 16 | 128 | | | 0-N/A | 5 |
| MFG452 | Moldmaking | 16 | 64 | | | 0-N/A | 3 |
| PSY102 | Human & Work Relations OR | 48 | | | | 0-N/A | 3 |
| PSY111 | Introduction to Psychology OR | 48 | | | | 0-N/A | 3 |
| SOC110 | Introduction to Sociology | 48 | | | | 0-N/A | 3 |
| TOTAL CREDITS | | | | | | | 17 |

Program Units 80

CNC Machining Technology (DIPL)

| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| MFG122 | Machine Trade Printreading I | 48 | | | | 0-N/A | 3 |
| MFG157 | Intro to CNC Programming I | 32 | | | | 0-N/A | 2 |
| 8WK1 | | | | | | | |
| MFG158 | Intro to CNC Programming II | 32 | | | | 0-N/A | 2 |
| 8WK2 | | | | | | | |
| MFG302 | CNC Fundamentals | | 96 | | | 0-N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | | | | 0-N/A | 2 |
| MFG222 | Machine Operations I | | 128 | | | 0-N/A | 4 |
| MAT772 | Applied Math OR | 48 | | | | 0-N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | | | | 0-N/A | 3 |
| MAT122 | College Algebra OR | 80 | | | | 0-N/A | 5 |
| MAT128 | Precalculus OR | 64 | | | | 0-N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | | | | 0-N/A | 3 |
| MAT156 | Statistics OR | 48 | | | | 0-N/A | 3 |
| MAT210 | Calculus I OR | 64 | | | | 0-N/A | 4 |
| MAT216 | Calculus II OR | 64 | | | | 0-N/A | 4 |
| MAT219 | Calculus III | 64 | | | | 0-N/A | 4 |
| TOTAL CREDITS | | | | | | | 19 |

Program Units 19

| Term 2 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|--------|---|---------|-------|-------|----------|-------|--------|
| MFG214 | Advanced Machine Theory | 32 | | | | 0-N/A | 2 |
| MFG228 | Machine Operations II | | 128 | | | 0-N/A | 4 |
| MFG142 | Geometric Dimensioning Toler. | 48 | | | | 0-N/A | 3 |
| MFG309 | CNC Programming Theory II | 64 | | | | 0-N/A | 4 |
| MFG335 | CNC Operations | | 96 | | | 0-N/A | 3 |
| COM781 | Written Communication in the Workplace OR | 48 | | | | 0-N/A | 3 |

| Program Units 38 | | | | | | | |
|----------------------|---|---------|-------|-------|----------|-------|----------|
| Term 3 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG364 | Hydraulic Jigs and Fixtures | 16 | 96 | | | N/A | 4 |
| MFG320 | Computer Aided Machining | 32 | 32 | | | N/A | 3 |
| MFG380 | EDM Fundamentals | 16 | 32 | | | N/A | 2 |
| TOTAL CREDITS | | | | | | | 9 |

| Program Units 47 | | | | | | | |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| Term 4 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG410 | CAD Die Design | 16 | 64 | | | N/A | 3 |
| WEL402 | Tool Steel Welding and Heat Treatment | 16 | 32 | | | N/A | 2 |
| MFG408 | Basic Diemaking | 32 | 192 | | | N/A | 8 |
| SPC101 | Fundamentals of Oral Communication | 48 | | | | N/A | 3 |
| TOTAL CREDITS | | | | | | | 16 |

| Program Units 63 | | | | | | | |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| Term 5 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG107 | Intro to 3D Modeling | 16 | 64 | | | N/A | 3 |
| MFG525 | CMM Inspection & SPC | 16 | 64 | | | N/A | 3 |
| MFG431 | Die Revision and Repair | 16 | 128 | | | N/A | 5 |
| MFG452 | Moldmaking | 16 | 64 | | | N/A | 3 |
| PSY102 | Human and Work Relations OR | 48 | | | | N/A | 3 |
| PSY111 | Introduction to Psychology OR | 48 | | | | N/A | 3 |
| SOC110 | Introduction to Sociology | 48 | | | | N/A | 3 |
| TOTAL CREDITS | | | | | | | 17 |

Program Units 80

CNC Machining Technology (DIPL)

| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|----------------------|---|---------|-------|-------|----------|-------|-----------|
| MFG122 | Machine Trade Printreading I | 48 | | | | N/A | 3 |
| MFG157 | Intro to CNC Programming I | 32 | | | | N/A | 2 |
| 8WK1 | | | | | | | |
| MFG158 | Intro to CNC Programming II | 32 | | | | N/A | 2 |
| 8WK2 | | | | | | | |
| MFG302 | CNC Fundamentals | | 96 | | | N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | | | | N/A | 2 |
| MFG222 | Machine Operations I | | 128 | | | N/A | 4 |
| MAT772 | Applied Math OR | 48 | | | | N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | | | | N/A | 3 |
| MAT122 | College Algebra OR | 80 | | | | N/A | 5 |
| MAT128 | Precalculus OR | 64 | | | | N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | | | | N/A | 3 |
| MAT156 | Statistics OR | 48 | | | | N/A | 3 |
| MAT210 | Calculus I OR | 64 | | | | N/A | 4 |
| MAT216 | Calculus II OR | 64 | | | | N/A | 4 |
| MAT219 | Calculus III | 64 | | | | N/A | 4 |
| TOTAL CREDITS | | | | | | | 19 |

Program Units 19

| Term 2 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
|--------|---|---------|-------|-------|----------|-------|--------|
| MFG214 | Advanced Machine Theory | 32 | | | | N/A | 2 |
| MFG228 | Machine Operations II | | 128 | | | N/A | 4 |
| MFG142 | Geometric Dimensioning Toler. | 48 | | | | N/A | 3 |
| MFG309 | CNC Programming Theory II | 64 | | | | N/A | 4 |
| MFG335 | CNC Operations | | 96 | | | N/A | 3 |
| COM781 | Written Communication in the Workplace OR | 48 | | | | N/A | 3 |

| | | | | | | | |
|----------------------|---|----------------|--------------|--------------|-----------------|--------------|---------------|
| ENG105 | Composition I | 48 | 0 | 0 | 0 | 0-N/A | 3 |
| TOTAL CREDITS | | | | | | | 19 |
| Program Units | | | | | | | 38 |
| Term 3 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG364 | Hydraulic Jigs and Fixtures | 16 | 96 | | | 0-N/A | 4 |
| MFG320 | Computer Aided Machining | 32 | 32 | | | 0-N/A | 3 |
| MFG380 | EDM Fundamentals | 16 | 32 | | | 0-N/A | 2 |
| TOTAL CREDITS | | | | | | | 9 |
| Program Units | | | | | | | 47 |

CNC Machine Set-Up Specialist (CERT)

| | | | | | | | |
|----------------------|---|----------------|--------------|--------------|-----------------|--------------|---------------|
| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG122 | Machine Trade Printreading I | 48 | 0 | | | 0-N/A | 3 |
| MFG157 | Intro to CNC Programming I | 32 | 0 | | | 0-N/A | 2 |
| MFG158 | Intro to CNC Programming II | 32 | 0 | | | 0-N/A | 2 |
| MFG302 | CNC Fundamentals | 0 | 96 | | | 0-N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | 0 | | | 0-N/A | 2 |
| MFG222 | Machine Operations I | 0 | 128 | | | 0-N/A | 4 |
| MAT772 | Applied Math OR | 48 | 0 | | | 0-N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | 0 | | | 0-N/A | 3 |
| MAT122 | College Algebra OR | 80 | 0 | | | 0-N/A | 5 |
| MAT128 | Precalculus OR | 64 | 0 | | | 0-N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | 0 | | | 0-N/A | 3 |
| MAT210 | Calculus I OR | 64 | 0 | | | 0-N/A | 4 |
| MAT156 | Statistics OR | 48 | 0 | | | 0-N/A | 3 |
| MAT216 | Calculus II OR | 64 | 0 | | | 0-N/A | 4 |
| MAT219 | Calculus III | 64 | 0 | | | 0-N/A | 4 |
| TOTAL CREDITS | | | | | | | 19 |
| Program Units | | | | | | | 19 |

| | | | | | | | |
|----------------------|---|----------------|--------------|--------------|-----------------|--------------|---------------|
| Term 2 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG214 | Advanced Machine Theory | 32 | 0 | | | 0-N/A | 2 |
| MFG228 | Machine Operations II | 0 | 128 | | | 0-N/A | 4 |
| MFG142 | Geometric Dimensioning Toler. | 48 | 0 | | | 0-N/A | 3 |
| MFG309 | CNC Programming Theory II | 64 | 0 | | | 0-N/A | 4 |
| MFG335 | CNC Operations | 0 | 96 | | | 0-N/A | 3 |
| COM781 | Written Communication in the Workplace OR | 48 | 0 | | | 0-N/A | 3 |
| ENG105 | Composition I | 48 | 0 | | | 0-N/A | 3 |
| TOTAL CREDITS | | | | | | | 19 |
| Program Units | | | | | | | 38 |

CNC Machine Operator (CERT)

| | | | | | | | |
|---------------|--|----------------|--------------|--------------|-----------------|--------------|---------------|
| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG122 | Machine Trade Printreading I | 48 | 0 | | | 0-N/A | 3 |
| MFG157 | Intro to CNC Programming I | 32 | 0 | | | 0-N/A | 2 |
| MFG158 | Intro to CNC Programming II | 32 | 0 | | | 0-N/A | 2 |
| MFG302 | CNC Fundamentals | 0 | 96 | | | 0-N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | 0 | | | 0-N/A | 2 |
| MFG222 | Machine Operations I | 0 | 128 | | | 0-N/A | 4 |
| MAT772 | Applied Math OR | 48 | 0 | | | 0-N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | 0 | | | 0-N/A | 3 |
| MAT122 | College Algebra OR | 80 | 0 | | | 0-N/A | 5 |

| | | | | | | | |
|----------------------|---|----------------|--------------|--------------|-----------------|--------------|---------------|
| ENG105 | Composition I | 48 | | | | N/A | 3 |
| TOTAL CREDITS | | | | | | | 19 |
| Program Units | | | | | | | 38 |
| Term 3 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG364 | Hydraulic Jigs and Fixtures | 16 | 96 | | | N/A | 4 |
| MFG320 | Computer Aided Machining | 32 | 32 | | | N/A | 3 |
| MFG380 | EDM Fundamentals | 16 | 32 | | | N/A | 2 |
| TOTAL CREDITS | | | | | | | 9 |
| Program Units | | | | | | | 47 |

CNC Machine Set-Up Specialist (CERT)

| | | | | | | | |
|----------------------|---|----------------|--------------|--------------|-----------------|--------------|---------------|
| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG122 | Machine Trade Printreading I | 48 | | | | N/A | 3 |
| MFG157 | Intro to CNC Programming I | 32 | | | | N/A | 2 |
| MFG158 | Intro to CNC Programming II | 32 | | | | N/A | 2 |
| MFG302 | CNC Fundamentals | | 96 | | | N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | | | | N/A | 2 |
| MFG222 | Machine Operations I | | 128 | | | N/A | 4 |
| MAT772 | Applied Math OR | 48 | | | | N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | | | | N/A | 3 |
| MAT122 | College Algebra OR | 80 | | | | N/A | 5 |
| MAT128 | Precalculus OR | 64 | | | | N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | | | | N/A | 3 |
| MAT210 | Calculus I OR | 64 | | | | N/A | 4 |
| MAT156 | Statistics OR | 48 | | | | N/A | 3 |
| MAT216 | Calculus II OR | 64 | | | | N/A | 4 |
| MAT219 | Calculus III | 64 | | | | N/A | 4 |
| TOTAL CREDITS | | | | | | | 19 |
| Program Units | | | | | | | 19 |

| | | | | | | | |
|----------------------|---|----------------|--------------|--------------|-----------------|--------------|---------------|
| Term 2 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG214 | Advanced Machine Theory | 32 | | | | N/A | 2 |
| MFG228 | Machine Operations II | | 128 | | | N/A | 4 |
| MFG142 | Geometric Dimensioning Toler. | 48 | | | | N/A | 3 |
| MFG309 | CNC Programming Theory II | 64 | | | | N/A | 4 |
| MFG335 | CNC Operations | | 96 | | | N/A | 3 |
| COM781 | Written Communication in the Workplace OR | 48 | | | | N/A | 3 |
| ENG105 | Composition I | 48 | | | | N/A | 3 |
| TOTAL CREDITS | | | | | | | 19 |
| Program Units | | | | | | | 38 |

CNC Machine Operator (CERT)

| | | | | | | | |
|---------------|--|----------------|--------------|--------------|-----------------|--------------|---------------|
| Term 1 | | Lecture | Lab-A | Lab-B | Clinical | Co-Op | Credit |
| MFG122 | Machine Trade Printreading I | 48 | | | | N/A | 3 |
| MFG157 | Intro to CNC Programming I | 32 | | | | N/A | 2 |
| MFG158 | Intro to CNC Programming II | 32 | | | | N/A | 2 |
| MFG302 | CNC Fundamentals | | 96 | | | N/A | 3 |
| MFG211 | Basic Machine Theory | 32 | | | | N/A | 2 |
| MFG222 | Machine Operations I | | 128 | | | N/A | 4 |
| MAT772 | Applied Math OR | 48 | | | | N/A | 3 |
| MAT110 | Math for Liberal Arts OR | 48 | | | | N/A | 3 |
| MAT122 | College Algebra OR | 80 | | | | N/A | 5 |

Comparison Report

| | | | | | | |
|----------------------|---|----|---|---|-------|-----------|
| MAT128 | Precalculus OR | 64 | 0 | 0 | 0-N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | 0 | 0 | 0-N/A | 3 |
| MAT156 | Statistics OR | 48 | 0 | 0 | 0-N/A | 3 |
| MAT210 | Calculus I OR | 64 | 0 | 0 | 0-N/A | 4 |
| MAT216 | Calculus II OR | 64 | 0 | 0 | 0-N/A | 4 |
| MAT219 | Calculus III | 64 | 0 | 0 | 0-N/A | 4 |
| TOTAL CREDITS | | | | | | 19 |

Program Units 19

8WK1 FIRST 8 WEEKS
 8WK2 SECOND 8 WEEKS
 1 These courses are part of a required summer term.
 1 These courses are part of a required summer term.
 1 These courses are part of a required summer term.
 8WK1 FIRST 8 WEEKS
 8WK2 SECOND 8 WEEKS
 8WK1 FIRST 8 WEEKS
 8WK2 SECOND 8 WEEKS
 8WK1 FIRST 8 WEEKS
 8WK2 SECOND 8 WEEKS

STUDENTS SPECIAL NEEDS: Hawkeye Community College (HCC) strives for student-centered, quality education with flexibility to allow for students' special needs. Students with physical, mental, or learning disabilities should contact the Special Needs Coordinator in Student Services at 319/296-4014 or specialneeds@hawkeyecollege.edu to learn how to apply for accommodations at HCC. Or, visit our website for more information and forms: <http://www.hawkeyecollege.edu/students/services/student-disability-services/default.aspx>

Nondiscrimination Statement: Hawkeye Community College does not discriminate on the basis of sex; race; age; color; creed; national origin; religion; disability; marital status; sexual orientation; gender identity; genetic information; political affiliation or belief in its employment practices; educational programs and activities; admission procedures; outreach and recruitment; counseling and guidance; testing; selection, placement, appointment, and referral; or promotion/retention. Veteran status in educational programs, activities, employment practices, or admission procedures is also included to the extent covered by law. Students, prospective students, employees, or applicants for employment alleging a violation of equity regulations shall have the right to file a formal complaint. Inquiries concerning application of this statement should be addressed to: Equity Coordinator, Human Resource Services, Hawkeye Community College, 1501 East Orange Road, P.O. Box 8015, Waterloo, Iowa 50704-8015, telephone 319-296-4405.

PID 403

| | | | | | | |
|----------------------|---|----|-----|-----|-----|-----------|
| MAT128 | Precalculus OR | 64 | N/A | N/A | N/A | 4 |
| MAT134 | Trigonometry and Analytic Geometry OR | 48 | N/A | N/A | N/A | 3 |
| MAT156 | Statistics OR | 48 | N/A | N/A | N/A | 3 |
| MAT210 | Calculus I OR | 64 | N/A | N/A | N/A | 4 |
| MAT216 | Calculus II OR | 64 | N/A | N/A | N/A | 4 |
| MAT219 | Calculus III | 64 | N/A | N/A | N/A | 4 |
| TOTAL CREDITS | | | | | | 19 |

Program Units 19

8WK1 FIRST 8 WEEKS
 8WK2 SECOND 8 WEEKS
 1 These courses are part of a required summer term.

STUDENTS SPECIAL NEEDS: Hawkeye Community College (HCC) strives for student-centered, quality education with flexibility to allow for students' special needs. Students with physical, mental, or learning disabilities should contact the Special Needs Coordinator in Student Services at 319/296-4014 or specialneeds@hawkeyecollege.edu to learn how to apply for accommodations at HCC. Or, visit our website for more information and forms: <http://www.hawkeyecollege.edu/students/services/student-disability-services/default.aspx>

Nondiscrimination Statement: Hawkeye Community College does not discriminate on the basis of sex; race; age; color; creed; national origin; religion; disability; marital status; sexual orientation; gender identity; genetic information; political affiliation or belief in its employment practices; educational programs and activities; admission procedures; outreach and recruitment; counseling and guidance; testing; selection, placement, appointment, and referral; or promotion/retention. Veteran status in educational programs, activities, employment practices, or admission procedures is also included to the extent covered by law. Students, prospective students, employees, or applicants for employment alleging a violation of equity regulations shall have the right to file a formal complaint. Inquiries concerning application of this statement should be addressed to: Equity Coordinator, Human Resource Services, Hawkeye Community College, 1501 East Orange Road, P.O. Box 8015, Waterloo, Iowa 50704-8015, telephone 319-296-4405.

PID 423

All Fields Report

All Fields ACCOUNTING & FINANCIAL ADMINISTRATION, AA

Cover

Program Cover

Program Title ACCOUNTING & FINANCIAL ADMINISTRATION, AA

Program ACCOUNTING PROGRAMS

CIP Code 24.0101 - Liberal Arts and Sciences/Liberal Studies.

Variation 0000

Secondary Career and Technical Education Program No

Award Type AA: Associate of Arts

Proposal Information

Semester Fall

Proposed Start Year 2018

Implementation Date Year 2017

Semester Fall

Length of Program

Terms

Weeks

Length includes Summer Section No

Knowledge of Change Emmerson, Janet

Maximum Annual Completers

Anticipated Annual Enrollment

Male 50

Female 50

Total 100

Ladder Program No

Program Goals

The AA in Financial Administration is designed for maximum transferability to AACSB Accredited Universities, including Iowa State University, University of Iowa, and University of Northern Iowa. Students who complete this degree will be able to enter the College of Business at these schools after taking the appropriate options required by each institution.

Program Rationale

Adding an additional option course to Semester 3 Changing Program Name

Student Interest

New program

Co-Contributor(s)

Contributor

- Bond, William (whbond@dmacc.edu)
- Lockard, Lisa (lblockard@dmacc.edu)

Program Summary

Program Title/Name

Program Title/Name

ACCOUNTING & FINANCIAL ADMINISTRATION, AA

State Title

Liberal Arts and Sciences/Liberal Studies.

Per IDOE requirements, the Program can be submitted a minimum of 60 days before and no more than 1 year before the program start date.

NOTE: The program start date will be entered as an available term date. Term dates are: January 1st, May 1st, August 15th

Enter the program start date and save.

Select Yes from the "Program meets date requirements" field

If Yes does not appear the date does not fall within the accepted range.

Per IDOE requirements, the Program can be submitted a minimum of 60 days before and no more than 1 year before the program start date.

NOTE: The program start date will be entered as an available term date. Term dates are: January 1st, May 1st, August 15th

Enter the program start date and save.

Select Yes from the "Program meets date requirements" field

If Yes does not appear the date does not fall within the accepted range.

Requested Program Start Date

Program meets date requirements

Originator

Emmerson, Janet

Phone

Extension

Program Summary

Institution

Address

City

State

Zip

Program Offering Location(s) (College Campus or site(s))

Program Codes

CIP Number

24.0101 - Liberal Arts and Sciences/Liberal Studies.

Variation 0000

ITSO #

03081103

Instructional Level: 03 - Postsecondary

Type of Program: 08 - Associate of Arts/Undeclared Major

Special Emphasis: 11 - No Special Emphasis

Object and Purpose: 03 - Credit

Cip Department

- 2401 (Liberal Arts and Sciences, General Studies and Humanities.)

Background Information

Type of Award AA: Associate of Arts

Anticipated Start Term

Year 2018

Semester Fall

Anticipated Enrollment

First Year Enrollment:

Total Annual Enrollment:

100

Anticipated Graduates

Total Annual Graduates:

Projected Graduates After Five Years:

Program Contact

1. First Name:

2. Last Name:

3. Title:

4. Address:

5. City:

6. State:

7. Zip Code:

8. Telephone Number:

9. Email:

President's Acknowledgement

President's Name

Dr. Rob Denson, Dr. Janet Emmerson

Date of Approval

Program Outcomes

Outcome

1. **Demonstrate effective communication skills including:** a. Write and speak organized appropriate to purpose and audience using correct written and oral communication in English. b. Interpret and analyze both written and oral communication. c. Work collaboratively. 2. **Demonstrate logical and critical thinking.** a. Develop reasoned and thorough explanations. b. Recognize and value the existence of different points of view. c. Analyze the data and design a solution. d. Perform research techniques to support solution. 3. **Develop an understanding of fundamental scientific principles and their application.** a. Apply scientific principles to analyze and solve problems in nature, culture and society. b. Make informed decisions, as citizens, on matters of public policy. 4. **Develop an understanding of mathematical principles and their application.** a. Develop logical thinking skills that permit the selection of models appropriate to problems. b. Prepare models to demonstrate solutions to projects. c. Identify, interpret and manipulate relevant data. d. Demonstrate strong spreadsheet techniques. 5. **Develop an understanding of human society and cross-cultural variation and perspective.** a. Demonstrate an understanding of social and behavioral sciences and their application to the study of cultural diversity and global cultures. 6. **Develop knowledge of and appreciation for human conditions.** a. Recognize the significance of historical context to culture and human expression. b. Demonstrate a fundamental knowledge of history, philosophy, literature, or the arts.

Outcome Mapping

Program Description

Program Description

Please use upper and lower case. This is the program description that will appear in the College Catalog.

Nature of Proposal

Nature of Proposal

Rationale for Proposal

Rationale

Rationale of Proposed Curriculum Revision

adding MGT 101 to option 2 courses

Fiscal Year of Revision

Fiscal Year of Revision

Fiscal Year

FY'2019= Fall 2018, Spring 2019, Summer 2019

Anticipated Start Date

Year 2018

Semester Fall

Date 08/15/2018

Length of Program

Length of Program

Does this proposed revision change the TOTAL length (contact hours, credits, or weeks) of the program?

Advisory Committee

Advisory Committee Members

Has the proposed change been reviewed by the program advisory committee?

Yes

Date of Advisory Council or Committee Approval

10/12/2017

Advisory Committee Minutes

Upload minutes documenting program change discussion with Advisory Committee in the "Attached Files" tab.

Advisory Committee Members

1. **Malinda Reynolds**

Employer Accountemps

Position Division Director

Gender Female

Racial/Ethnic Background White

Disability No

Member of Organized Labor No

2. **Patricia Holmes**
Employer DMACC/Retired
Position Accounting Professor
Gender Female
Racial/Ethnic Background White
Disability No
Member of Organized Labor No
3. **Bill Raine**
Employer Raine Recruiting
Position Owner
Gender Male
Racial/Ethnic Background White
Disability No
Member of Organized Labor No
4. **Kurt Konek**
Employer Konek PC
Position CPA
Gender Male
Racial/Ethnic Background White
Disability No
Member of Organized Labor No
5. **Vada Grantham**
Employer Des Moines Area Community College
Position Chair of Entrepreneurship Program
Gender Male
Racial/Ethnic Background Black or African American
Disability No
Member of Organized Labor No
6. **Gregg Dodds**
Employer Principal Corporation
Position Senior Treasury Manager
Gender Male
Racial/Ethnic Background White
Disability No
Member of Organized Labor No
7. **Pam Sullivan**
Employer State of Iowa
Position A/P & eDAS Billing Team Manager
Gender Female
Racial/Ethnic Background White

Disability No

Member of Organized Labor No

Award Options

Awards Within Program

1. **ACCOUNTING & FINANCIAL ADMINISTRATION, AA**

Award Type AA: Associate of Arts

Award Description

The AA in Accounting & Financial Administration is designed for students who want to continue their education in Finance and/or Accounting at Iowa State University, University of Iowa, and University of Northern Iowa. It is designed for maximum transferability to these Universities and will also be the best option for students pursuing AACSB Accredited Universities outside of Iowa. Students who complete this degree will be able to enter the College of Business at these schools after taking the appropriate options required by each institution. (Contact an Advisor for each institution's requirements.) Financial Administration will provide a competitive advantage to students seeking internships and employment by allowing them to take more Accounting classes during their first two years. Some of those options include advanced knowledge of Computer Accounting packages, Payroll Accounting, and Financial Analysis. For more information about the Financial Administration, please visit our website at www.dmacc.edu/programs/accounting. Locations: Ankeny, Boone, Carroll, Newton, Urban and Online.

Instructional Level 03 - Postsecondary

Type of Program 08 - Associate of Arts/Undeclared Major

Special Emphasis 11 - No Special Emphasis

Object/Purpose 03 - Credit

Is Compliant

Term Course Definitions

Course Block Definitions

1. **Header**

Footer

Override Default Unit Calculations

No

Unit Min

0.00

Unit Max

0.00

Awards

- ACCOUNTING & FINANCIAL ADMINISTRATION, AA AA

Term

Term, if applicable

Term 1

Length of Term In Weeks

16.00

Program Courses

1. **Course**

ACC 131 - Principles of Accounting I 4.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ACC - DMACC - Accounting

Course

ACC 131 - Principles of Accounting I 4.000 *Active*

Condition

Tech Core

Yes

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

2. **Course**

SDV 108 - The College Experience 1.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

SDV - DMAACC - Student Development

Course

SDV 108 - The College Experience 1.000 *Active*

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

3. **Course**

ENG 105 - Composition I 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ENG - DMAACC - English Composition

Course

ENG 105 - Composition I 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

Students must take both ENG105 and ENG106 and either SPC101 or SPC122. It is recommended to take ENG105 in Semester 1, ENG106 in Semester 2 and SPC101 or SPC122 in Semester 3.

4. **Course**

ENG 106 - Composition II 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ENG - DMACC - English Composition

Course

ENG 106 - Composition II 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

5. **Course**

SPC 101 - Fundamentals of Oral Communication 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

SPC - DMACC - Speech

Course

SPC 101 - Fundamentals of Oral Communication 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

6. **Course**

SPC 122 - Interpersonal Communication 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

SPC - DMAACC - Speech

Course

SPC 122 - Interpersonal Communication 3.000 *Active*

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

7. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Humanities

Units

Min Units

3.00

Max Units

Contact Hours

Min Lecture

48.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

H

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

8. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Math

Units

Min Units

4.00

Max Units

Contact Hours

Min Lecture

64.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

S

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

2. **Header**

Footer

Override Default Unit Calculations

No

Unit Min

0.00

Unit Max

0.00

Awards

- ACCOUNTING & FINANCIAL ADMINISTRATION, AA AA

Term

Term, if applicable

Term 2

Length of Term In Weeks

16.00

Program Courses

1. **Course**

ACC 132 - Principles of Accounting II 4.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ACC - DMACC - Accounting

Course

ACC 132 - Principles of Accounting II 4.000 *Active*

Condition

Tech Core

Yes

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

2. **Course**

CSC 110 - Introduction to Computers 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

CSC - DMACC - Computer Science

Course

CSC 110 - Introduction to Computers 3.000 *Active*

Condition

Tech Core

Yes

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

3. **Course**

ENG 105 - Composition I 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ENG - DMACC - English Composition

Course

ENG 105 - Composition I 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

4. **Course**

ENG 106 - Composition II 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ENG - DMACC - English Composition

Course

ENG 106 - Composition II 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

5. **Course**

SPC 101 - Fundamentals of Oral Communication 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

SPC - DMACC - Speech

Course

SPC 101 - Fundamentals of Oral Communication 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

6. **Course**

SPC 122 - Interpersonal Communication 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

SPC - DMACC - Speech

Course

SPC 122 - Interpersonal Communication 3.000 *Active*

Condition

Tech Core

No

**This is an Iowa Gen Ed non-course requirement. No
Iowa Gen Ed**

**This is an APS Gen Ed non-course requirement. No
APS Gen Ed**

Footnote Identifier

3

Footnote

7. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Humanities

Units

Min Units

3.00

Max Units

Contact Hours

Min Lecture

48.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

No

**This is an Iowa Gen Ed non-course requirement. Yes
Iowa Gen Ed**

H

**This is an APS Gen Ed non-course requirement. No
APS Gen Ed**

Footnote Identifier

Footnote

8. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Social & Behavioral Sciences

Units

Min Units

3.00

Max Units

Contact Hours

Min Lecture

48.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

H

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

3. **Header**

Footer

Override Default Unit Calculations

No

Unit Min

0.00

Unit Max

0.00

Awards

- ACCOUNTING & FINANCIAL ADMINISTRATION, AA AA

Term

Term, if applicable

Term 3

Length of Term In Weeks

16.00

Program Courses

1. **Course**

ECN 120 - Principles of Macroeconomics 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ECN - DMAcc - Economics

Course

ECN 120 - Principles of Macroeconomics 3.000 *Active*

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

2. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Humanities

Units

Min Units

3.00

Max Units

Contact Hours

Min Lecture

48.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

H

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

3. **Course**

ENG 105 - Composition I 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ENG - DMACC - English Composition

Course

ENG 105 - Composition I 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

4. **Course**

ENG 106 - Composition II 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ENG - DMACC - English Composition

Course

ENG 106 - Composition II 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

5. **Course**

SPC 101 - Fundamentals of Oral Communication 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

SPC - DMACC - Speech

Course

SPC 101 - Fundamentals of Oral Communication 3.000 *Active*

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

6. **Course**

SPC 122 - Interpersonal Communication 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

SPC - DMAACC - Speech

Course

SPC 122 - Interpersonal Communication 3.000 *Active*

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

3

Footnote

7. **Course**

Requirement Type

Non-Course Requirement

Parent

Non-Course Requirements

ACC-XXX: Elective

Units

Min Units

7.00

Max Units

Contact Hours

Min Lecture

112.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

or

Tech Core

Yes

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

4

Footnote

Select 7 credits from ACC202, ACC124, ACC314, ACC315, ACC231, ACC161, ACC191, ACC165, BUS231, BUS185, BUS102, or MGT101. Be advised that taking a course plus its prerequisite will increase your program credit total.

8. **Course**

Requirement Type

Non-Course Requirement

Parent

Non-Course Requirements

BUS-XXX: Elective

Units

Min Units

7.00

Max Units

Contact Hours

Min Lecture

112.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

or

Tech Core

Yes

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

4

Footnote

9. **Course**

Requirement Type

Non-Course Requirement

Parent

Non-Course Requirements

MGT-XXX: Elective

Units

Min Units

7.00

Max Units

Contact Hours

Min Lecture

112.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

Yes

This is an Iowa Gen Ed non-course requirement. No

Iowa Gen Ed

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

4

Footnote

4. **Header**

Footer

Override Default Unit Calculations

No

Unit Min

0.00

Unit Max

0.00

Awards

- ACCOUNTING & FINANCIAL ADMINISTRATION, AA AA

Term

Term, if applicable

Term 4

Length of Term In Weeks

16.00

Program Courses

1. **Course**

ECN 130 - Principles of Microeconomics 3.000 *Active*

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Units

Min Units

Max Units

Contact Hours

Min Lecture

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

ECN - DMAcc - Economics

Course

ECN 130 - Principles of Microeconomics 3.000 *Active*

Condition

Tech Core

No
This is an Iowa Gen Ed non-course requirement. No
Iowa Gen Ed
This is an APS Gen Ed non-course requirement. No
APS Gen Ed
Footnote Identifier
Footnote

2. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Mathematics

Units

Min Units

4.00

Max Units

Contact Hours

Min Lecture

64.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

S

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

3. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Social & Behavioral Sciences

Units

Min Units

3.00

Max Units

Contact Hours

Min Lecture

48.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

H

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

Footnote

4. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Sciences

Units

Min Units

3.00

Max Units

Contact Hours

Min Lecture

48.00

Max Lecture

Min Lab
Max Lab
Min Clinic
Max Clinic
Min Work
Max Work
Optional Course No
Subject
Course
Condition
Tech Core
No
This is an Iowa Gen Ed non-course requirement. Yes
Iowa Gen Ed
S
This is an APS Gen Ed non-course requirement. No
APS Gen Ed
Footnote Identifier
Footnote

5. **Course**
Requirement Type
Course Requirement
Parent
Non-Course Requirements
Any AA Communications
Units
Min Units
4.00
Max Units
Contact Hours
Min Lecture
64.00
Max Lecture
Min Lab
Max Lab
Min Clinic
Max Clinic
Min Work
Max Work
Optional Course No
Subject
Course
Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

C

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

6

Footnote

Select any 4 credits from the DMACC AA/AS General Education courses in any of the Communications, Social & Behavioral Sciences, Mathematics & Sciences, or Humanities categories. See Catalog for options.

6. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Mathematics

Units

Min Units

4.00

Max Units

Contact Hours

Min Lecture

64.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

S

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

6

Footnote

7. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Sciences

Units

Min Units

4.00

Max Units

Contact Hours

Min Lecture

64.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

S

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

6

Footnote

8. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Social & Behavioral Sciences

Units

Min Units

4.00

Max Units

Contact Hours

Min Lecture

64.00

Max Lecture

Min Lab

Max Lab

Min Clinic

Max Clinic

Min Work

Max Work

Optional Course No

Subject

Course

Condition

or

Tech Core

No

This is an Iowa Gen Ed non-course requirement. Yes

Iowa Gen Ed

H

This is an APS Gen Ed non-course requirement. No

APS Gen Ed

Footnote Identifier

6

Footnote

9. **Course**

Requirement Type

Course Requirement

Parent

Non-Course Requirements

Any AA Humanities

Units

Min Units

4.00

Max Units

Contact Hours

Min Lecture

64.00

Max Lecture

Min Lab

Max Lab
Min Clinic
Max Clinic
Min Work
Max Work
Optional Course No
Subject
Course
Condition
Tech Core
No
This is an Iowa Gen Ed non-course requirement. Yes
Iowa Gen Ed
H
This is an APS Gen Ed non-course requirement. No
APS Gen Ed
Footnote Identifier
6
Footnote

Is Compliant

Articulation and Linkage With Other Institutions

This program has articulation and linkages with other institutions No

Type of Linkage

For AS/CO programs only, provide a description of each signed articulation agreement.
Articulation Agreements

Submitted By

Name J Emmerson

Title

Phone

Email

Date Submitted 03/05/2018

For DE Use Only

Approval

Rationale

Award Guidelines

Gen Ed Minimum Requirements

CIP Code Alignment
State Consultant
Date Approved
Date Entered to System
Completed By

Attached Files

Attached File
Advisory Committee Vote (/Form/Program/_DownloadFile/372/3207?fileId=487)
Accounting Board Minutes 2017 (/Form/Program/_DownloadFile/372/3207?fileId=488)

Codes

Entry of Special Dates

Instructional Services

Location

CIP Code 24.0101 - Liberal Arts and Sciences/Liberal Studies.

Variation 0000

Program-Level Codes

Instructional Level: 03 - Postsecondary

Type of Program: 08 - Associate of Arts/Undeclared Major

Special Emphasis: 11 - No Special Emphasis

Object and Purpose: 03 - Credit

Award-Level Codes

NOI Title

Program Title ACCOUNTING & FINANCIAL ADMINISTRATION, AA

Length

Additional Proposal Information

Start Date

Start Term Fall

Start Year 2018

Originator Emmerson, Janet

Comments

Comment

Need For Change

Adding an additional option course to Semester 3 Changing Program Name

Comments for Iowa DOE

adding MGT101 to option 4

Total Units Override:

to

Iowa State Compliance

Iowa State Compliance Detail

Rule 1 - Max Weeks

✓ ACCOUNTING & FINANCIAL ADMINISTRATION, AA Total Weeks: (Compliance Check Not required)

Rule 2 - Total Credits

✓ ACCOUNTING & FINANCIAL ADMINISTRATION, AA Total Credits: (Compliance Check Not required)

Rule 3 - Max Average Credits Per Term

✓ ACCOUNTING & FINANCIAL ADMINISTRATION, AA Avg Credits Per Term: 0.00 (Compliance Check Not required)

Rule 4 - Minimum Gen Ed Hours

✓ ACCOUNTING & FINANCIAL ADMINISTRATION, AA GE Hours: 0.00 (Compliance Check Not required)

Rule 5 - Minimum Gen Ed Area Count

✓ ACCOUNTING & FINANCIAL ADMINISTRATION, AA GE Area Count: 0 (Compliance Check Not required)

Rule 6 - Tech Core/Hours

✓ ACCOUNTING & FINANCIAL ADMINISTRATION, AA Tech Core %: 0.00 (Compliance Check Not required)

Note: The "Is Compliant" statement below will auto populate "Yes" when the above compliance check completes satisfactorily and the tab is refreshed.

Is Compliant

Proposal Impact Report

ACC 131 - Principles of Accounting I
****ILCC - CurricUNET Conversion****
Iowa Lakes Community College

Course Requisites

This course is not being used as a requisite for any course

Programs

This course is incorporated into the following program(s):

1. **Iowa Lakes Community College** ILCC - CIP Reclassification-Associate of Applied Science *Active* ACCOUNTING SPECIALIST
2. **Iowa Lakes Community College** ILCC - CIP Reclassification-Associate of Applied Science *Active* ADMINISTRATIVE ASSISTANT
3. **Iowa Lakes Community College** ILCC - CIP Reclassification-Associate of Applied Science *Active* BUSINESS ADMINISTRATION AND MANAGEMENT
4. **Iowa Lakes Community College** ILCC - CIP Reclassification-Associate of Applied Science *Active* PARALEGAL/LLEGAL STUDIES PROGRAM
5. **Iowa Lakes Community College** ILCC - CurricUNET Conversion-Associate of Applied Science *Active* AUTO COLLISION AND PAINT REPAIR TECHNOLOGY
6. **Iowa Lakes Community College** ILCC - Modify Program-Associate of Applied Science *Active* HOTEL AND RESTAURANT MANAGEMENT
7. **Iowa Lakes Community College** ILCC - Modify Program-Associate of Applied Science *Active* MARINE AND SMALL ENGINE TECHNOLOGY
8. **Iowa Lakes Community College** ILCC - Modify Program-Associate of Applied Science *Active* Powersports and Power Equipment Technology
9. **Iowa Lakes Community College** ILCC - Modify Program-Associate of Applied Science *Active* WIND ENERGY AND TURBINE TECHNOLOGY
10. **Iowa Lakes Community College** ILCC - Modify Program-Associate of Applied Science *Draft* ACCOUNTING SPECIALIST

Program Summary Report Form

Request for approval of a Career and Technical Education Program

Southeastern (SCC) request approval to offer a **Entrepreneurship/Entrepreneurial Studies, CIP #5207010200.03.02.11.03** program. The Division of Community College recommends approval.

| Local Title: | Entrepreneurship | | | | | | | | | | | | | | |
|--|---|--------------------|----------------------|---|--|--|--|-----------|------------------|----------------|---------------------|---|--|--|--|
| Program Description: | The AAS Entrepreneurship is intended for individuals who wish to specialize in entrepreneurial business. | | | | | | | | | | | | | | |
| Program Length: | <u>Terms</u> 4 | <u>Weeks</u> 64 | <u>Credits</u> 63 | | | | | | | | | | | | |
| Completion Award: | Associate of Applied Science | | | | | | | | | | | | | | |
| Articulation Agreements: | None required | | | | | | | | | | | | | | |
| Projected Date for Implementation of Program: | January 1, 2018 | | | | | | | | | | | | | | |
| Assurances: | The applicant has assured the Department that it will not discriminate against students; equitable access will be provided to all students; multicultural, nonsexist approaches will be integrated; services to students with disabilities will be provided and reasonable accommodations made; and that the program is competency-based. The college also assures the Department that it is in compliance with the Code of Iowa, Chapter 260C.14(1), concerning duplication of programs. | | | | | | | | | | | | | | |
| Projected Enrollment Per Year: | 15 | | | | | | | | | | | | | | |
| Projected Completers Per Year: | 10 | | | | | | | | | | | | | | |
| Projected Employment Opportunities: | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">Employment Opportunities for Program Completers</th> </tr> <tr> <th style="width: 50%;">Job Title</th> <th style="width: 10%;">Annual Openings*</th> <th style="width: 10%;">Annual Supply*</th> <th style="width: 30%;">Entry Level Salary*</th> </tr> </thead> <tbody> <tr> <td>11-1021 General and Operations Managers</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><small>* Annual supply is the number of completers of all postsecondary programs, including the proposed program, serving the geographic area that prepare students for the listed job title.</small></p> | | | Employment Opportunities for Program Completers | | | | Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | 11-1021 General and Operations Managers | | | |
| Employment Opportunities for Program Completers | | | | | | | | | | | | | | | |
| Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | | | | | | | | | | | | |
| 11-1021 General and Operations Managers | | | | | | | | | | | | | | | |
| Similar Programs in Other Community Colleges: | | | | | | | | | | | | | | | |
| Additional Comments: | SCC's Business Administration program should not be harmed by this addition, and common coursework adds strength to both programs. Joint meetings of the Entrepreneurship Advisory Council and the SBDC Advisory Board will help strengthen access to the Entrepreneurship program. | | | | | | | | | | | | | | |
| Local Title: | Entrepreneurship Diploma | | | | | | | | | | | | | | |
| Program Description: | The Entrepreneurship Diploma is intended for individuals who wish to specialize in the creation of new business ventures, evaluate the feasibility of a new venture, and identify the available resources for assisting an entrepreneur during the start-up phase of business. | | | | | | | | | | | | | | |
| Program Length: | <u>Terms</u> 2 | <u>Weeks</u> 32 | <u>Credits</u> 36 | | | | | | | | | | | | |
| Completion Award: | Diploma | | | | | | | | | | | | | | |
| Articulation Agreements: | None required | | | | | | | | | | | | | | |
| Projected Date for Implementation of Program: | January 1, 2018 | | | | | | | | | | | | | | |
| Assurances: | The applicant has assured the Department that it will not discriminate against students; equitable access will be provided to all students; multicultural, nonsexist approaches will be integrated; services to students with disabilities will be provided and reasonable accommodations made; and that the program is competency-based. The college also assures the Department that it is in compliance with the Code of Iowa, Chapter 260C.14(1), concerning duplication of programs. | | | | | | | | | | | | | | |

| Projected Enrollment Per Year: | 15 | | | | | | | | | | | | |
|--|--|---|---------------------|----------------|---|-----------|------------------|----------------|---------------------|---|--|--|--|
| Projected Completers Per Year: | 10 | | | | | | | | | | | | |
| Projected Employment Opportunities: | <table border="1"> <thead> <tr> <th colspan="4">Employment Opportunities for Program Completers</th> </tr> <tr> <th>Job Title</th> <th>Annual Openings*</th> <th>Annual Supply*</th> <th>Entry Level Salary*</th> </tr> </thead> <tbody> <tr> <td>11-1021 General and Operations Managers</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>* Annual supply is the number of completers of all postsecondary programs, including the proposed program, serving the geographic area that prepare students for the listed job title.</p> | Employment Opportunities for Program Completers | | | | Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | 11-1021 General and Operations Managers | | | |
| Employment Opportunities for Program Completers | | | | | | | | | | | | | |
| Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | | | | | | | | | | |
| 11-1021 General and Operations Managers | | | | | | | | | | | | | |
| Similar Programs in Other Community Colleges: | | | | | | | | | | | | | |
| Additional Comments: | SCC's Business Administration program should not be harmed by this addition, and common coursework adds strength to both programs. Joint meetings of the Entrepreneurship Advisory Council and the SBDC Advisory Board will help strengthen access to the Entrepreneurship program. | | | | | | | | | | | | |
| Local Title: | Small Business Management Certificate | | | | | | | | | | | | |
| Program Description: | The Small Business Management Certificate is intended for individuals who wish to work in or own a small business. | | | | | | | | | | | | |
| Program Length: | <table border="1"> <thead> <tr> <th><u>Terms</u></th> <th><u>Weeks</u></th> <th><u>Credits</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>16</td> <td>18</td> </tr> </tbody> </table> | <u>Terms</u> | <u>Weeks</u> | <u>Credits</u> | 1 | 16 | 18 | | | | | | |
| <u>Terms</u> | <u>Weeks</u> | <u>Credits</u> | | | | | | | | | | | |
| 1 | 16 | 18 | | | | | | | | | | | |
| Completion Award: | Certificate | | | | | | | | | | | | |
| Articulation Agreements: | None required | | | | | | | | | | | | |
| Projected Date for Implementation of Program: | January 1, 2018 | | | | | | | | | | | | |
| Assurances: | The applicant has assured the Department that it will not discriminate against students; equitable access will be provided to all students; multicultural, nonsexist approaches will be integrated; services to students with disabilities will be provided and reasonable accommodations made; and that the program is competency-based. The college also assures the Department that it is in compliance with the Code of Iowa, Chapter 260C.14(1), concerning duplication of programs. | | | | | | | | | | | | |
| Projected Enrollment Per Year: | 15 | | | | | | | | | | | | |
| Projected Completers Per Year: | 10 | | | | | | | | | | | | |
| Projected Employment Opportunities: | <table border="1"> <thead> <tr> <th colspan="4">Employment Opportunities for Program Completers</th> </tr> <tr> <th>Job Title</th> <th>Annual Openings*</th> <th>Annual Supply*</th> <th>Entry Level Salary*</th> </tr> </thead> <tbody> <tr> <td>11-1021 General and Operations Managers</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>* Annual supply is the number of completers of all postsecondary programs, including the proposed program, serving the geographic area that prepare students for the listed job title.</p> | Employment Opportunities for Program Completers | | | | Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | 11-1021 General and Operations Managers | | | |
| Employment Opportunities for Program Completers | | | | | | | | | | | | | |
| Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | | | | | | | | | | |
| 11-1021 General and Operations Managers | | | | | | | | | | | | | |
| Similar Programs in Other Community Colleges: | | | | | | | | | | | | | |
| Additional Comments: | SCC's Business Administration program should not be harmed by this addition, and common coursework adds strength to both programs. Joint meetings of the Entrepreneurship Advisory Council and the SBDC Advisory Board will help strengthen access to the Entrepreneurship program. | | | | | | | | | | | | |
| Local Title: | Entrepreneurship Certificate | | | | | | | | | | | | |
| Program Description: | The Entrepreneurship Certificate is intended for individuals who wish to own or participate in a small business startup. | | | | | | | | | | | | |
| Program Length: | <table border="1"> <thead> <tr> <th><u>Terms</u></th> <th><u>Weeks</u></th> <th><u>Credits</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>16</td> <td>18</td> </tr> </tbody> </table> | <u>Terms</u> | <u>Weeks</u> | <u>Credits</u> | 1 | 16 | 18 | | | | | | |
| <u>Terms</u> | <u>Weeks</u> | <u>Credits</u> | | | | | | | | | | | |
| 1 | 16 | 18 | | | | | | | | | | | |
| Completion Award: | Certificate | | | | | | | | | | | | |
| Articulation Agreements: | None required | | | | | | | | | | | | |

| Projected Date for Implementation of Program: | January 1, 2018 | | | | | | | | | | | | |
|--|--|---|---------------------|--|--|-----------|------------------|----------------|---------------------|---|--|--|--|
| Assurances: | The applicant has assured the Department that it will not discriminate against students; equitable access will be provided to all students; multicultural, nonsexist approaches will be integrated; services to students with disabilities will be provided and reasonable accommodations made; and that the program is competency-based. The college also assures the Department that it is in compliance with the Code of Iowa, Chapter 260C.14(1), concerning duplication of programs. | | | | | | | | | | | | |
| Projected Enrollment Per Year: | 15 | | | | | | | | | | | | |
| Projected Completers Per Year: | 10 | | | | | | | | | | | | |
| Projected Employment Opportunities: | <table border="1"> <thead> <tr> <th colspan="4">Employment Opportunities for Program Completers</th> </tr> <tr> <th>Job Title</th> <th>Annual Openings*</th> <th>Annual Supply*</th> <th>Entry Level Salary*</th> </tr> </thead> <tbody> <tr> <td>11-1021 General and Operations Managers</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>* Annual supply is the number of completers of all postsecondary programs, including the proposed program, serving the geographic area that prepare students for the listed job title.</p> | Employment Opportunities for Program Completers | | | | Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | 11-1021 General and Operations Managers | | | |
| Employment Opportunities for Program Completers | | | | | | | | | | | | | |
| Job Title | Annual Openings* | Annual Supply* | Entry Level Salary* | | | | | | | | | | |
| 11-1021 General and Operations Managers | | | | | | | | | | | | | |
| Similar Programs in Other Community Colleges: | | | | | | | | | | | | | |
| Additional Comments: | SCC's Business Administration program should not be harmed by this addition, and common coursework adds strength to both programs. Joint meetings of the Entrepreneurship Advisory Council and the SBDC Advisory Board will help strengthen access to the Entrepreneurship program. | | | | | | | | | | | | |

Program Proposal Example

New Program Proposal Form

Second Phase of New Program Proposal

This form is to be completed by the college originator upon consultation with an Education Program Consultant at the Iowa Department of Education



Community Colleges

Grimes State Office
Building
Des Moines, Iowa
50319-0146
Phone: 515-281-8260
Fax: 515-242-5988
www.educateiowa.gov

Institution: Indian Hills

Date of Submission: 03/22/2018

Program Contact/Originator:

Name: Jones, Heidi

Email: Heidi.Jones@indianhills.edu

Phone:

College President/Chancellor: Terrian, Daniel

IDOE Education Program Consultant(s): Zoe Thornton

Date(s) of IDOE Consultation: 03/10/2018

Program Information

Program Title and Codes

Full State (CIP) Title: Medical/Clinical Assistant.

CIP Number (10 digit): 510801

Anticipated Start Date: 08/15/2018

Anticipated Annual Enrollment: 10

Anticipated Annual Completers: 8

Program Options

Medical Assistant (Non-Degree) (Diploma)

Program Description

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

Program Need

As part of the Notice of Intent process, colleges submit a Labor Market Information Worksheet to demonstrate the economic need for their proposed program. The information submitted for this program is provided below.

1. What are the employment opportunities for program completers?

In the chart below, "Regional" means your college service region/counties and "State" is Iowa; however, you may report bordering states' data, if applicable. "National" data is only necessary if career mobility is common in the proposed program's related occupations.

Also, please note if the job listed is "Non-traditional by Gender", meaning has less than 25% of one gender in the workforce.

| Occupation's Related Job Title(s) | Annual Openings (Number) | | | Iowa's Annual Supply* (Number of awards) | | | Average Entry-Level Salary | Non-traditional by Gender |
|-----------------------------------|--------------------------|-------|----------|--|-----------|-----------|----------------------------|---------------------------|
| | Regional | State | National | Bachelor | Associate | Dipl/Cert | | |
| Medical Assistant (Non-Degree) | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | |

**Annual Supply is the number of completers of all postsecondary programs as reported through the National Center for Education Statistics or on the [EDEPS](#) and/or [O*Net Online](#) links above.*

2. What is the short-term (2-5 years) and long-term (10 yr.) growth rates for the job title(s) in item #1?

| Job Title | Short-term Growth Rate (Percentage) | | | Long-term Growth Rate (Percentage) | | |
|-----------|-------------------------------------|-------|----------|------------------------------------|-------|----------|
| | Regional | State | National | Regional | State | National |
| | | | | | | |

| | | | | | | |
|-----------------------------------|----|----|----|----|----|----|
| Medical Assistant (Non-Degree) | 0% | 0% | 0% | 0% | 0% | 0% |
|-----------------------------------|----|----|----|----|----|----|

Primary LMI Resource: [Iowa Occupational Projections \(Long-term and Short-term link\)](#) & [Iowa Hot Jobs](#)

3. For the job title(s) in item #1, what are the minimum educational requirements (*postsecondary education - certificate, diploma, associate or bachelor's degree; work experience; training in the form of clinical, internship, apprenticeship, OTJ training*)?

Medical Assistant (Non-Degree)

Education N/A
Work Experience N/A
Training N/A

Primary LMI Resource: [Iowa Occupational Projections \(see the Legend on bottom of the tables provided\)](#)

4. List any professional credential(s) required by the state of Iowa (or bordering state) for employment in this occupation
 N/A

Primary Resources: <https://www.iowaworkforcedevelopment.gov/iowa-licensed-occupation-information-2015> (Links to other sites)

5. Any occupation with less than 25% of one gender in the workforce is identified as "Nontraditional by Gender." Are any of the job titles in item #1 identified 'nontraditional by gender'?

Yes No

Primary LMI Resource: [EDEPS \(Nontraditional Occupations link\)](#)

6. How many individuals completed the proposed CIP program in Iowa over the last two (2) years? (List each community college and the number of degree/award recipients for each.)

| Year (2 years) | Community College | Type of Award(s) Granted (Check all that apply) | Total Number of Completers |
|----------------|-------------------|--|----------------------------|
| 2017 | SCC | <input type="checkbox"/> AAA <input type="checkbox"/> AAS <input type="checkbox"/> APS <input type="checkbox"/> ASCO <input type="checkbox"/> Cert <input checked="" type="checkbox"/> Dipl | 20 |

Primary LMI Resource: [IDOE > Community College SharePoint site \(request from IDOE Consultant\)](#)

7. Answer the following questions regarding Career Pathways, Academies, and Articulation Agreements that may apply to the proposed program:

- a. What are the existing or potential secondary pathways or articulation agreements?

This is a shared program with SCC. SCC holds the program accreditation. SCC issues the award. MOU signed on 2/22/18.

- b. What are the existing or potential postsecondary articulation agreements that permit program completers to advance their education in this or related programs of study?

This is a shared program with SCC. SCC holds the program accreditation. SCC issues the award. MOU signed on 2/22/18.

- c. What are the potential collaborative/shared program with peer institutions that could limit duplication or the proliferation of funds/resources?

This is a shared program with SCC. SCC holds the program accreditation. SCC issues the award. MOU signed on 2/22/18.

8. If this is a program that requires clinical, internship, apprenticeship, or other supervised work experience for completion:

- a. Do you anticipate there may be a need for sites outside of your service region?: Yes

- b. If yes, what collaborative efforts have or will you discuss with peer institutions?

IHCC will be the outside region for SCC. Students from IHCC will complete their clinical rotations in our area, but the clinicals will be organized and overseen by SCC.

9. Please provide additional LMI that may be relevant to the establishment of this program. (e.g., It is a heavily self-employed occupation; it is a high turn-over occupation that will have many vacancies in the future (list where, when, and how many expected annual vacancies); there is a severe shortage of workers in this occupation in our service region; there is a new company/business moving into our service region that needs trained employees in this occupation.)

Possible LMI Resource: [Iowa Workforce Needs Assessment or a college/local Needs Assessment](#)

This is a shared program with SCC. SCC holds the program accreditation. SCC issues the award. MOU signed on 2/22/18.

10. **Please provide additional information you would like the IDOE to consider regarding the need for this program to be offered at your college and your ability to deliver a quality program that will prepare students for gainful employment.**

This is a shared program with SCC. SCC holds the program accreditation. SCC issues the award. MOU signed on 2/22/18.

11. **Please list any additional resources that you used in addition to those provided in the box below. Please provide links if they are accessible via the internet**

N/A

If there is anything else to add that will further demonstrate the need for your college to offer this program, please provide that narrative below.

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC holds the accreditation and grants the award.

This is a fully accredited program offered at SCC. The cost of the initial program accreditation, faculty, lab facilities, etc. is prohibitive to IHCC developing its own Medical Assisting Program. This partnership will allow IHCC to share resources with SCC to fill employer needs within our region.

Program Duplication

Collaboration with Other Postsecondary Institutions

Describe efforts to collaborate with other postsecondary institutions with similar programs. Attach any correspondence with affected institutions regarding the proposed program and other evidence of collaboration.

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

State or Regional Priority

If applicable, describe any special need for this program in the state of Iowa.

N/A

Additional Comments

Provide any additional comments regarding possible program duplication (e.g., why the program is unique and justified even though a similar program is offered, why harmful competition does not exist, etc).

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

Employers in the IHCC region continue to inquire about the possibility of offering a Medical Assisting Program, however the demand has not been high enough to justify the development of a full program. This partnership will allow IHCC to fill employer needs within our region.

Institutional Approval

Governing Board

Date of Governing Board Approval: 20-Mar-18

Internal Approval Process

Briefly describe the academic governance process used for institutional approval of this program.

Approved at IHCC Academic Standards Committee Meeting.

Program Articulation and Linkages with Other Institutions

Are there Program Articulation and Linkages with other institutions? No

Type of Linkage (Check All That Apply)

- Tech Prep or Career Academy Agreement with Secondary District(s) or High School(s)
- Concurrent Enrollment Agreement(s) with Secondary District(s) or High School(s)
- Articulation Agreement(s) with Secondary District(s) or High School(s)
- Articulation Agreement(s) with Four Year Institutions
- Program of Study Meeting Perkins Act Requirements
- Articulation Agreement(s) with Apprenticeship Program(s)

Provide a brief description of each agreement noted above. For APS programs only, provide a description of each signed articulation agreement with a four-year institution.

| Receiving/Sending Institution | Brief Description of Agreement |
|-------------------------------|--------------------------------|
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Program Standards and Benchmarks

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

Assessment

Describe the plan for assessing student attainment of program standards and benchmarks.

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

Program Content

Upon submission, attach the completed AS-28 data set for the program, a summary of courses by term, course descriptions, and program standards and benchmarks.

Specialized/Professional Accreditation

Is this program required to have specialized or professional accreditation?

Yes No

What is the status of program accreditation?

Obtained Pursuing Not Pursuing N/A

If pursuing accredited status, please provide the timeline for aligning program standards with the accrediting body and obtaining accredited status. If a specialized or professional accreditation exists but is not being pursued, please briefly explain why this is appropriate.

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

Licensure and Certification

Is this proposed program intended to prepare students for an occupation requiring licensure, certification, or registration?

Yes No

Is the proposed program intended to prepare students for an industry certification or to obtain a marketable industry-issued credential? Yes No

If "Yes" to either of the above, briefly explain what will be done to prepare the students in the proposed program for the assessments to obtain occupational credentials.

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

Equity

Provide the projected male-to-female student ratio. Briefly describe strategies to enhance the enrollment and success of students from the nontraditional gender, if applicable. The federal list of nontraditional programs can be found in the [MIS reporting manual](#).

N/A

Briefly describe strategies to enhance enrollment of underrepresented students in terms of racial or ethnic background.

N/A

Jointly Offered Program

If the proposed program will be jointly offered by more than one postsecondary institution, please describe the arrangement. Attach the Memorandum of Understanding (MOU) and information regarding the entire program including portions delivered by other institutions.

This is a shared program between IHCC and SCC. Students will complete core courses through SCC, and general education courses through IHCC. SCC will coordinate clinical rotations for these students, in the IHCC region. SCC hold the accreditation and grants the award.

Mode of Delivery (for ICCPHSE Intent Form)

- On Campus
- Off Campus - face-to-face
- Off Campus - online
- Hybrid/Blended (Face-to-face & online)

ICCPHSE Intent Form

If appropriate, please provide additional comments for inclusion on the Iowa Coordinating Council for Post High School Education (ICCPHSE) Program Intent Form.

Assurances Form

Second Phase of New Program Proposal



Community Colleges
and Workforce
Preparation
Grimes State Office
Building
Des Moines, Iowa
50319-0146
Phone: 515-281-3636
Fax: 515-281-6544
www.iowa.gov/educate

Institution: Indian Hills
Program Title: Medical/Clinical Assistant.

Assurances

The applicant assures that in carrying out this program it will comply with federal and state laws which prohibit discrimination on the basis of race, color, national origin, gender, disability, religion, creed, age, or marital status in educational programs.

The applicant assures that equitable access will be provided to all students.

The applicant assures that multicultural, gender fair approaches will be used in planning and implementing programs.

The applicant assures that employers in work-site based training programs do not discriminate against employees or customers and provide an environment free of racial and sexual harassment. Students will be accepted for on-the job training, clinical or work experiences, assigned to jobs and otherwise treated without regard to race, color, national origin, gender, marital status or disability.

The applicant assures that services to students with disabilities are provided in the least restrictive environment that will meet their needs.

The applicant assures that reasonable accommodations are provided to students with disabilities.

The applicant assures that the programs include competency-based applied learning which contributes to an individual's academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, and occupational-specific skills.

If this program is a shared program with another community college, the applicant assures that the appropriate contracts and agreements are in place.

The applicant assures that instructors teaching in this program will be appropriately prepared

The applicant assures that the college is in compliance with the Code of Iowa, Chapter 260C.14(1) concerning duplication of programs.

President: Dr. Marlene Sprouse

Date: 21-Mar-2018

Advisory Committee Form

Second Phase of New Program Proposal



Community Colleges
and Workforce
Preparation

Grimes State Office
Building

Des Moines, Iowa

50319-0146

Phone: 515-281-3636

Fax: 515-281-6544

www.iowa.gov/educate

Institution: Indian Hills

Program Title: Medical/Clinical Assistant.

Date of Advisory Council or Committee Approval: 10/12/2017

Membership

1. Name: Southeastern Community College
Employer: Southeastern Community College
Position: Southeastern Community College

Gender: Male Female

Racial/Ethnic Background: White

Disability: Yes No

Organized Labor: Yes No

Program Course Utilization Report

| Course No | Local Name |
|-----------|--|
| ACC - 111 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) |
| ACC - 115 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Ag Business Management - Ag Business Management (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - General Agriculture (Diploma) Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Hospitality Management - Hospitality Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) |
| ACC - 116 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) |
| ACC - 160 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) |

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| ACC - 190 | Accounting AAS - Accounting (Associate of Applied Sciences) |
| ACC - 222 | Accounting AAS - Accounting (Associate of Applied Sciences) |
| ACC - 231 | Accounting AAS - Accounting (Associate of Applied Sciences) |
| ACC - 232 | Accounting AAS - Accounting (Associate of Applied Sciences) |
| ACC - 265 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) |
| ACC - 310 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| ACC - 360 | Accounting AAS - Accounting (Associate of Applied Sciences) |
| ACC - 803 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| ADM - 105 | Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences) |
| ADM - 108 | Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate |

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| | <p>of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma)</p> |
| ADM - 131 | <p>Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> |
| ADM - 148 | <p>Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma)</p> |
| ADM - 159 | <p>Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma)</p> |
| ADM - 162 | <p>Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate)</p> |
| ADM - 180 | <p>Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> |

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| ADM - 200 | Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) |
| ADM - 203 | Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) |
| ADM - 208 | Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) |
| ADN - 121 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 122 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 123 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 315 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 452 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 453 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 455 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 458 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| ADN - 499 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) |
| AGA - 114 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Ag Business Management - General Agriculture (Diploma) Ag Business Management - Precision Agriculture (Certificate) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - General Agriculture (Diploma) Liberal Arts AS - () |

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| AGA - 154 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Ag Business Management - General Agriculture (Diploma)</p> <p>Ag Business Management - Precision Agriculture (Certificate)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - General Agriculture (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |
| AGA - 214 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGA - 284 | <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |
| AGA - 376 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Ag Business Management - General Agriculture (Diploma)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> |

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| | <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> |
| AGB - 101 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGB - 235 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGB - 303 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGB - 330 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> |

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| AGB - 331 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> |
| AGB - 336 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGC - 103 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Ag Business Management - General Agriculture (Diploma)</p> <p>Ag Power Technology - Ag Power Technology (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - General Agriculture (Diploma)</p> <p>Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> <p>Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences)</p> |
| AGH - 112 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> |
| AGH - 119 | <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGH - 123 | <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> |

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| AGH - 140 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> |
| AGH - 142 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> |
| AGH - 143 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> |
| AGH - 161 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> |
| AGH - 200 | <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> |
| AGH - 211 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> |
| AGH - 221 | <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> |
| AGH - 233 | <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> |
| AGH - 270 | <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> |

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| AGH - 280 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Landscape and Turf Management - Grounds Maintenance (Diploma) Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences) Liberal Arts AS - () |
| AGH - 292 | Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences) |
| AGH - 425 | Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Landscape and Turf Management - Grounds Maintenance (Diploma) |
| AGM - 104 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| AGM - 111 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| AGM - 113 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| AGM - 124 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| AGM - 126 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) |
| AGM - 128 | Electromechanical Engineering Technology - Product Development Technician (Certificate) |
| AGM - 142 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) |
| AGM - 224 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| AGM - 333 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |

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| AGM - 408 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| AGM - 417 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) |
| AGM - 932 | Electromechanical Engineering Technology - Product Development Technician (Certificate) |
| AGP - 333 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Ag Business Management - Precision Agriculture (Certificate) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) Liberal Arts AS - () |
| AGP - 340 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences) Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences) |
| AGP - 401 | Liberal Arts AS - () |
| AGP - 436 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Ag Business Management - Precision Agriculture (Certificate) |
| AGP - 450 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Ag Business Management - General Agriculture (Diploma) Ag Business Management - Precision Agriculture (Certificate) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) Liberal Arts AS - () |

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| AGS - 113 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Ag Business Management - General Agriculture (Diploma)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - General Agriculture (Diploma)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGS - 211 | <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGS - 216 | <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> |
| AGS - 218 | <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Meat Science (Certificate)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Liberal Arts AS - ()</p> |
| AGS - 225 | <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Meat Science (Certificate)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> |
| AGS - 226 | <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Meat Science (Certificate)</p> <p>Animal Science - Veterinary Assisting (Diploma)</p> |

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| | Animal Science - Veterinary Assisting (Diploma) Animal Science - Veterinary Assisting (Diploma) |
| AGS - 272 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Meat Science (Certificate) Animal Science - Veterinary Assisting (Diploma) Liberal Arts AS - () |
| AGS - 275 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) |
| AGS - 305 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - General Agriculture (Diploma) Animal Science - Meat Science (Certificate) Animal Science - Veterinary Assisting (Diploma) Liberal Arts AS - () |
| AGS - 319 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Ag Business Management - General Agriculture (Diploma) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - General Agriculture (Diploma) Animal Science - Veterinary Assisting (Diploma) Liberal Arts AS - () |
| AGT - 805 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Meat Science (Certificate) Animal Science - Veterinary Assisting (Diploma) Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences) Liberal Arts AS - () Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences) Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences) |

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| AGV - 101 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) |
| AGV - 121 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) |
| AGV - 123 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) Liberal Arts AS - () |
| AGV - 140 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) |
| AGV - 154 | Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - Veterinary Assisting (Diploma) |
| ATR - 145 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| AUT - 106 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 109 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 164 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 204 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |

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| AUT - 307 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 315 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 404 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 504 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 537 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 610 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 631 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 643 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 704 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 827 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 834 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 842 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| AUT - 886 | Automotive Technology - Automotive Technology (Associate of Applied Sciences) |
| BCA - 132 | Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) |

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| | <p>Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma)</p> |
| <p>BCA - 134</p> | <p>Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> |

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| BCA - 183 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| BCA - 205 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Information Systems Management - Information Systems Management (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences) Network Administration & Engineering - Computer Networking Technician (Diploma) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| BCA - 213 | Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) |
| BCA - 232 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| BUS - 108 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Executive Assistant AAS - Administrative Assistant (Diploma) Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences) Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Executive Assistant AAS - Office Assistant (Certificate) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) |

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| | <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Secretary (Diploma)</p> <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| BUS - 220 | <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| BUS - 291 | <p>Accounting AAS - Accounting (Associate of Applied Sciences)</p> <p>Executive Assistant AAS - Administrative Assistant (Diploma)</p> <p>Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences)</p> <p>Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Secretary (Diploma)</p> <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> |
| BUS - 903 | <p>Executive Assistant AAS - Administrative Assistant (Diploma)</p> <p>Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences)</p> <p>Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |

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| | <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> |
| CAD - 119 | <p>Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Technician (Diploma)</p> <p>Electromechanical Engineering Technology - Electronic Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Technician (Diploma)</p> |
| CAD - 200 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CAD - 208 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CET - 122 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 133 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 142 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 160 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 182 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 213 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 223 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |

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| CET - 233 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 253 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 256 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 262 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CET - 285 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CIS - 121 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| CIS - 184 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| CIS - 206 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| CIS - 215 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| CIS - 217 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| CIS - 225 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| CIS - 231 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| CIS - 234 | Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |

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| CIS - 249 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| CIS - 274 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| CIS - 303 | <p>Information Systems Management - Information Systems Management (Associate of Applied Sciences)</p> <p>Network Administration & Engineering - Computer Networking Technician (Diploma)</p> <p>Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences)</p> |
| CIS - 355 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| CIS - 364 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| CIS - 504 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| CIS - 604 | <p>Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences)</p> |
| CIS - 750 | <p>Information Systems Management - Information Systems Management (Associate of Applied Sciences)</p> <p>Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences)</p> |
| CNS - 104 | <p>Natural Resources Management-Tech - Natural Resources Aide (Certificate)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |

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| CNS - 107 | <p>Natural Resources Management-Tech - Natural Resources Aide (Certificate)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |
| CNS - 108 | <p>Natural Resources Management-Tech - Natural Resources Aide (Certificate)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |
| CNS - 109 | <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |
| CNS - 110 | <p>Natural Resources Management-Tech - Natural Resources Aide (Certificate)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |
| CNS - 121 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Ag Business Management - General Agriculture (Diploma)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - Animal Science (Associate of Applied Sciences)</p> <p>Animal Science - General Agriculture (Diploma)</p> <p>Animal Science - General Agriculture (Diploma)</p> <p>Associate of Arts - ()</p> <p>Business Admin AA - ()</p> <p>Liberal Arts AS - ()</p> <p>Natural Resources Management-Tech - Natural Resources Aide (Certificate)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |
| CNS - 134 | <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> |

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| CNS - 228 | Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences) Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences) |
| CNS - 929 | Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences) Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences) |
| COM - 730 | Dental Assisting - Dental Assisting (Diploma) |
| COM - 781 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting Technician (Diploma) Ag Business Management - Ag Business Management (Associate of Applied Sciences) Ag Business Management - General Agriculture (Diploma) Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Animal Science - Animal Science (Associate of Applied Sciences) Animal Science - General Agriculture (Diploma) Animal Science - Veterinary Assisting (Diploma) Automotive Technology - Automotive Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) |

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| | <p>Graphic Communications - Graphic Communications (Associate of Applied Arts)</p> <p>Hospitality Management - Hospitality Management (Associate of Applied Sciences)</p> <p>Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences)</p> <p>Information Systems Management - Information Systems Management (Associate of Applied Sciences)</p> <p>Interdisciplinary Studies AAS - (Associate of Applied Sciences)</p> <p>Interdisciplinary Studies AAS - (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> <p>Network Administration & Engineering - Computer Networking Technician (Diploma)</p> <p>Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences)</p> <p>Professional Photography - Professional Photography (Associate of Applied Arts)</p> <p>Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences)</p> |
| CON - 102 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 108 | <p>Landscape and Turf Management - Grounds Maintenance (Diploma)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences)</p> |
| CON - 121 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 129 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 130 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |

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| CON - 131 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 133 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 146 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 201 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 214 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 217 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 228 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 266 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| CON - 290 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 302 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 486 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 510 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 512 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CON - 933 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| CRJ - 100 | Associate of Arts - () Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences) Police Science - Police Science (Associate of Applied Sciences) |

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| CRJ - 135 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 141 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 143 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 151 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 200 | Associate of Arts - () Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 234 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 237 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 244 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 252 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 254 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 266 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 282 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 285 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 315 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 322 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 952 | Police Science - Police Science (Associate of Applied Sciences) |
| CRJ - 955 | Associate of Arts - () |
| CRR - 306 | Collision Repair & Refinishing - Basic Collision Repair (Diploma) Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 331 | Collision Repair & Refinishing - Basic Collision Repair (Diploma) Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 510 | Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |

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| CRR - 657 | Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 740 | Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 750 | Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 821 | Collision Repair & Refinishing - Basic Collision Repair (Diploma) Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 822 | Collision Repair & Refinishing - Basic Collision Repair (Diploma) Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 836 | Collision Repair & Refinishing - Basic Collision Repair (Diploma) Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 877 | Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| CRR - 881 | Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences) |
| DEA - 103 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 258 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 263 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 302 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 412 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 417 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 513 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 514 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 556 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 578 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 591 | Dental Assisting - Dental Assisting (Diploma) |

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| DEA - 603 | Dental Assisting - Dental Assisting (Diploma) |
| DEA - 702 | Dental Assisting - Dental Assisting (Diploma) |
| DHY - 111 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 116 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 121 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 131 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 141 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 160 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 175 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 187 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 188 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 210 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 211 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 222 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 240 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 254 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 259 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 262 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 271 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 272 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 297 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 298 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 307 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 308 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |
| DHY - 901 | Dental Hygiene - Dental Hygiene (Associate of Applied Sciences) |

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| DRF - 110 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| DSL - 377 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| DSL - 415 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| DSL - 447 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| DSL - 807 | Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| DSL - 831 | Ag Power Technology - Ag Power Technology (Associate of Applied Sciences) Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences) |
| ECE - 103 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 125 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| ECE - 133 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 158 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 159 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 170 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 221 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |

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| ECE - 243 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 250 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| ECE - 260 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| ECE - 274 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 284 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| ECE - 290 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| ECE - 298 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| ECE - 299 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| ECE - 944 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) Early Childhood Education - Early Childhood Education (Diploma) |
| ECE - 945 | Early Childhood Education - Early Childhood Education (Associate of Applied Sciences) |
| EGT - 108 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electromechanical Engineering Technology - Electronic Installer (Certificate) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Installer (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) |
| EGT - 140 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Industrial Automation Technology - () Industrial Automation Technology - Industrial Automation Technology (Associate |

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| | of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| EGT - 144 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| EGT - 149 | Industrial Automation Technology - () Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| EGT - 152 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| EGT - 243 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| EGT - 410 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electromechanical Engineering Technology - Electronic Installer (Certificate) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Installer (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) |
| EGT - 420 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Technician (Diploma) Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |

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| EGT - 460 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) |
| ELE - 218 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| ELT - 104 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electromechanical Engineering Technology - Electronic Installer (Certificate) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Installer (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) |
| ELT - 120 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| ELT - 133 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| ELT - 139 | Industrial Automation Technology - () Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| ELT - 156 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) |
| ELT - 192 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) |
| ELT - 215 | Industrial Automation Technology - () Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| ELT - 216 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| ELT - 234 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |

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| ELT - 239 | Industrial Automation Technology - () Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| ELT - 240 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| ELT - 245 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| ELT - 290 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electromechanical Engineering Technology - Electronic Installer (Certificate) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Installer (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) |
| ELT - 291 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electromechanical Engineering Technology - Electronic Installer (Certificate) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Installer (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) |
| ELT - 315 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| ELT - 321 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electromechanical Engineering Technology - Electronic Installer (Certificate) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Installer (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) |

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| ELT - 322 | <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Technician (Diploma)</p> <p>Electromechanical Engineering Technology - Electronic Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Technician (Diploma)</p> |
| ELT - 403 | <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> |
| ELT - 415 | <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> |
| ELT - 417 | <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> |
| ELT - 444 | <p>Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences)</p> |
| ELT - 469 | <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Technician (Diploma)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Technician (Diploma)</p> |
| ELT - 494 | <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> |
| ELT - 497 | <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> |
| ELT - 532 | <p>Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences)</p> |
| ELT - 600 | <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Technician (Diploma)</p> <p>Electromechanical Engineering Technology - Electronic Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Installer (Certificate)</p> |

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| | Electronics Engineering Technology - Electronics Technician (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) |
| ELT - 703 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) |
| ELT - 704 | Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) |
| ELT - 736 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| ELT - 802 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) |
| ELT - 803 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) |
| EMS - 114 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Police Science - Police Science (Associate of Applied Sciences) |
| EMS - 201 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |
| EMS - 363 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |
| EMS - 364 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |

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| | Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |
| EMS - 365 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |
| EMS - 541 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 546 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 610 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 619 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 641 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 650 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 654 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 655 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 674 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 677 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |

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| EMS - 678 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Emergency Medical Services - Paramedic (Certificate) |
| EMS - 856 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) |
| EMS - 900 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |
| ENV - 155 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| FIN - 121 | Ag Business Management - Ag Business Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) |
| FIR - 124 | Fire Science - Fire Science (Associate of Applied Sciences) |
| FIR - 127 | Fire Science - Fire Science (Associate of Applied Sciences) |
| FIR - 130 | Fire Science - Fire Science (Associate of Applied Sciences) |
| FIR - 139 | Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |

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| FIR - 322 | Fire Science - Fire Science (Associate of Applied Sciences) |
| FIR - 335 | Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) Fire Science - Fire Science (Associate of Applied Sciences) |
| FIR - 400 | Fire Science - Fire Science (Associate of Applied Sciences) |
| FIR - 655 | Fire Science - Fire Science (Associate of Applied Sciences) |
| GRA - 105 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 124 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 133 | Graphic Communications - Graphic Communications (Associate of Applied Arts) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) |
| GRA - 142 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 160 | Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 162 | Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| GRA - 196 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 197 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 205 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 206 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |

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| GRA - 221 | Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 232 | Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 238 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 239 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 290 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| GRA - 949 | Graphic Communications - Graphic Communications (Associate of Applied Arts) |
| HCM - 138 | Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 200 | Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 240 | Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 242 | Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Hospitality Management - Hospitality Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| HCM - 251 | Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 309 | Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 589 | Hospitality Management - Hospitality Management (Associate of Applied Sciences) |

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| HCM - 602 | Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 605 | Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 608 | Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCM - 905 | Hospitality Management - Hospitality Management (Associate of Applied Sciences) |
| HCR - 111 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 114 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 137 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 181 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 200 | Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| HCR - 281 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 282 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 283 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 415 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 429 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 455 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 517 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 602 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 852 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 911 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |
| HCR - 912 | Heating and Air Conditioning - Heating and Air Conditioning (Diploma) |

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| HEQ - 109 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 110 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 116 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 118 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 201 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences) |
| HEQ - 203 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 208 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 209 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 210 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 214 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HEQ - 907 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) |
| HIT - 125 | Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences) Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma) |
| HIT - 146 | Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences) Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma) |

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| HIT - 156 | <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Secretary (Diploma)</p> <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 166 | <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Secretary (Diploma)</p> <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 215 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 240 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 250 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 280 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 290 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 352 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |

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| HIT - 450 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HIT - 510 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| HSC - 108 | <p>Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences)</p> <p>Associate Degree Nursing-ADN - Practical Nursing (Diploma)</p> <p>Medical Assistant - Medical Assistant (Diploma)</p> <p>Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences)</p> <p>Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences)</p> |
| HSC - 113 | <p>Dental Hygiene - Dental Hygiene (Associate of Applied Sciences)</p> <p>Emergency Medical Services - Emergency Medical Services (Associate of Applied Sciences)</p> <p>Emergency Medical Services - Paramedic (Certificate)</p> <p>Medical Assistant - Medical Assistant (Diploma)</p> <p>Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences)</p> <p>Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences)</p> <p>Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences)</p> <p>Respiratory Care - Respiratory Care (Associate of Applied Sciences)</p> |
| HSC - 217 | <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| IND - 100 | <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Technician (Diploma)</p> <p>Electromechanical Engineering Technology - Electronic Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Technician (Diploma)</p> <p>Industrial Automation Technology - ()</p> <p>Industrial Automation Technology - Industrial Automation Technology (Associate</p> |

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| | of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| IND - 111 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Technician (Diploma) Electromechanical Engineering Technology - Electronic Installer (Certificate) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Installer (Certificate) Electronics Engineering Technology - Electronics Technician (Diploma) Industrial Automation Technology - () Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| IND - 145 | Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| MAP - 111 | Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) Medical Assistant - Medical Assistant (Diploma) |
| MAP - 117 | Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) Medical Assistant - Medical Assistant (Diploma) |
| MAP - 132 | Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences) Medical Administrative Assistant - Medical Secretary (Diploma) |
| MAP - 225 | Medical Assistant - Medical Assistant (Diploma) |
| MAP - 228 | Medical Assistant - Medical Assistant (Diploma) |
| MAP - 342 | Medical Assistant - Medical Assistant (Diploma) |
| MAP - 343 | Medical Assistant - Medical Assistant (Diploma) |

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| MAP - 402 | <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Secretary (Diploma)</p> <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| MAP - 511 | <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Secretary (Diploma)</p> <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> |
| MAP - 941 | <p>Medical Assistant - Medical Assistant (Diploma)</p> |
| MAT - 504 | <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Technician (Diploma)</p> <p>Electromechanical Engineering Technology - Electronic Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Technician (Diploma)</p> |
| MAT - 514 | <p>Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences)</p> <p>Electromechanical Engineering Technology - Electromechanical Technician (Diploma)</p> <p>Electromechanical Engineering Technology - Electronic Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences)</p> <p>Electronics Engineering Technology - Electronics Installer (Certificate)</p> <p>Electronics Engineering Technology - Electronics Technician (Diploma)</p> |
| MAT - 744 | <p>Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences)</p> |
| MAT - 747 | <p>Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences)</p> |

MAT - 772

Accounting AAS - Accounting (Associate of Applied Sciences)
Accounting AAS - Accounting Technician (Diploma)
Ag Business Management - Ag Business Management (Associate of Applied Sciences)
Ag Business Management - General Agriculture (Diploma)
Ag Power Technology - Ag Power Technology (Associate of Applied Sciences)
Animal Science - Animal Science (Associate of Applied Sciences)
Animal Science - General Agriculture (Diploma)
Animal Science - Veterinary Assisting (Diploma)
Automotive Technology - Automotive Technology (Associate of Applied Sciences)
CNC Machining & Tool-Making Technology - CNC Machine Operator (Certificate)
CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate)
CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences)
CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma)
Collision Repair & Refinishing - Basic Collision Repair (Diploma)
Collision Repair & Refinishing - Collision Repair & Refinishing (Associate of Applied Sciences)
Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences)
Diesel Truck Technology - Diesel Truck Technology (Associate of Applied Sciences)
Digital Mass Media - Digital Mass Media (Associate of Applied Arts)
Early Childhood Education - Early Childhood Education (Associate of Applied Sciences)
Early Childhood Education - Early Childhood Education (Diploma)
Executive Assistant AAS - Administrative Assistant (Diploma)
Executive Assistant AAS - Executive Assistant (Associate of Applied Sciences)
Executive Assistant AAS - Legal Office Assistant (Associate of Applied Sciences)
Executive Assistant AAS - Office Assistant (Certificate)
Fire Science - Fire Science (Associate of Applied Sciences)
Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)
Graphic Communications - Graphic Communications (Associate of Applied Arts)
Heating and Air Conditioning - Heating and Air Conditioning (Diploma)
Hospitality Management - Hospitality Management (Associate of Applied Sciences)
Industrial Automation Technology - ()
Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences)
Industrial Automation Technology - Industrial Equipment Maintenance (Diploma)

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| | <p>Interdisciplinary Studies AAS - (Associate of Applied Sciences)</p> <p>Interdisciplinary Studies AAS - (Associate of Applied Sciences)</p> <p>Landscape and Turf Management - Landscape and Turf Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Administrative Assistant (Associate of Applied Sciences)</p> <p>Medical Administrative Assistant - Medical Secretary (Diploma)</p> <p>Medical Billing and Coding Associate - Medical Billing and Coding Associate (Associate of Applied Sciences)</p> <p>Medical Billing and Coding Associate - Medical Insurance Coding Specialist (Diploma)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tech (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> <p>Natural Resources Management-Tech - Natural Resources Management-Tran (Associate of Applied Sciences)</p> <p>Police Science - Police Science (Associate of Applied Sciences)</p> <p>Professional Photography - Professional Photography (Associate of Applied Arts)</p> <p>Sustainable Construction and Design - Sustainable Construction and Design (Associate of Applied Sciences)</p> <p>Welding Technology/Welder - Certificate (Welding) (Certificate)</p> <p>Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma)</p> <p>Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma)</p> <p>Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences)</p> |
| MFG - 107 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) |
| MFG - 122 | <p>CNC Machining & Tool-Making Technology - CNC Machine Operator (Certificate)</p> <p>CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate)</p> <p>CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences)</p> <p>CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma)</p> |
| MFG - 142 | <p>CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate)</p> <p>CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences)</p> <p>CNC Machining & Tool-Making Technology - CNC Machining Technology</p> |

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| | CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 157 | CNC Machining & Tool-Making Technology - CNC Machine Operator (Certificate) CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 158 | CNC Machining & Tool-Making Technology - CNC Machine Operator (Certificate) CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 193 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |
| MFG - 211 | CNC Machining & Tool-Making Technology - CNC Machine Operator (Certificate) CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 214 | CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 222 | CNC Machining & Tool-Making Technology - CNC Machine Operator (Certificate) CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology |

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| | CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 228 | CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 302 | CNC Machining & Tool-Making Technology - CNC Machine Operator (Certificate) CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 309 | CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 320 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 335 | CNC Machining & Tool-Making Technology - CNC Machine Set-Up Specialist (Certificate) CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 364 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 365 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |
| MFG - 366 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) |

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| MFG - 380 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) CNC Machining & Tool-Making Technology - CNC Machining Technology (Diploma) |
| MFG - 408 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) |
| MFG - 410 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) |
| MFG - 431 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) |
| MFG - 452 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) |
| MFG - 525 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) |
| MGT - 101 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting (Associate of Applied Sciences) Associate of Arts - () Business Admin AA - () Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Information Systems Management - Information Systems Management (Associate of Applied Sciences) Liberal Arts AS - () Marketing Management - Marketing Management (Associate of Applied Sciences) |
| MGT - 110 | Accounting AAS - Accounting (Associate of Applied Sciences) Accounting AAS - Accounting (Associate of Applied Sciences) Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) |

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| | <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| MGT - 142 | Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| MGT - 170 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Hospitality Management - Hospitality Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Information Systems Management - Information Systems Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MGT - 174 | Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| MGT - 177 | Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| MGT - 178 | Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| MGT - 180 | Human Resource Management - Human Resource Management (Associate of Applied Sciences) |
| MGT - 190 | Human Resource Management - Human Resource Management (Associate of Applied Sciences) |

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| MGT - 210 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Hospitality Management - Hospitality Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MGT - 222 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> |
| MKT - 110 | <p>Ag Business Management - Ag Business Management (Associate of Applied Sciences)</p> <p>Associate of Arts - ()</p> <p>Business Admin AA - ()</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Graphic Communications - Graphic Communications (Associate of Applied Arts)</p> <p>Graphic Communications - Graphic Communications (Associate of Applied Arts)</p> <p>Graphic Communications - Graphic Communications (Associate of Applied Arts)</p> <p>Hospitality Management - Hospitality Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Liberal Arts AS - ()</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MKT - 140 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> |

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| | <p>Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MKT - 142 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Hospitality Management - Hospitality Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MKT - 152 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Graphic Communications - Graphic Communications (Associate of Applied Arts)</p> <p>Graphic Communications - Graphic Communications (Associate of Applied Arts)</p> <p>Graphic Communications - Graphic Communications (Associate of Applied Arts)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MKT - 160 | <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MKT - 198 | <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |

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| | Marketing Management - Marketing Management (Associate of Applied Sciences) |
| MLT - 101 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 103 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 110 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 120 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 130 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 230 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 233 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 240 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 250 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 252 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 260 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 270 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 283 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 284 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 285 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |

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| MLT - 286 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 287 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 288 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MLT - 291 | Medical Laboratory Technology - Medical Laboratory Technology (Associate of Applied Sciences) |
| MMS - 103 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 105 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 111 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 117 | <p>Digital Mass Media - Digital Mass Media (Associate of Applied Arts)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Golf Course and Country Club Management - Golf Course and Country Club Management (Associate of Applied Sciences)</p> <p>Hospitality Management - Hospitality Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Human Resource Management - Human Resource Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> <p>Marketing Management - Marketing Management (Associate of Applied Sciences)</p> |
| MMS - 124 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 128 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |

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| MMS - 134 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 138 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) Marketing Management - Marketing Management (Associate of Applied Sciences) |
| MMS - 208 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 213 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 214 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 233 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 265 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 300 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 302 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 310 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 320 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 330 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 410 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 420 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 430 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 901 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |

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| MMS - 905 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| MMS - 949 | Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) Digital Mass Media - Digital Mass Media (Associate of Applied Arts) |
| NET - 109 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Computer Networking Technician (Diploma) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |
| NET - 152 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 213 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Computer Networking Technician (Diploma) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 225 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Computer Networking Technician (Diploma) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 268 | Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 269 | Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |

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| NET - 310 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 313 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Computer Networking Technician (Diploma) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 320 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 346 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 412 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Computer Networking Technician (Diploma) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 474 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 475 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 612 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 710 | Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |

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| NET - 916 | Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 932 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| NET - 949 | Information Systems Management - Information Systems Management (Associate of Applied Sciences) Network Administration & Engineering - Network Administration & Engineering (Associate of Applied Sciences) |
| OTA - 102 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 103 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 104 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 201 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 202 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 203 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 204 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 302 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 310 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 311 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 312 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 313 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |

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| OTA - 401 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 402 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 403 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 501 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 502 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| OTA - 503 | Occupational Therapy Assistant - Occupational Therapy Assistant (Associate of Applied Sciences) |
| PHT - 102 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 106 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 108 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 109 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 110 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 111 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 132 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 202 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 204 | Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 210 | Professional Photography - Professional Photography (Associate of Applied Arts) Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 215 | Professional Photography - Professional Photography (Associate of Applied Arts) Professional Photography - Professional Photography (Associate of Applied Arts) Professional Photography - Professional Photography (Associate of Applied Arts) |
| PHT - 216 | Professional Photography - Professional Photography (Associate of Applied Arts) Professional Photography - Professional Photography (Associate of Applied Arts) Professional Photography - Professional Photography (Associate of Applied Arts) |

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| PHY - 183 | Civil & Construction Engineering Technology - Civil & Construction Engineering Technology (Associate of Applied Sciences) Electromechanical Engineering Technology - Electromechanical Engineering Technology (Associate of Applied Sciences) Electronics Engineering Technology - Electronics Engineering Technology (Associate of Applied Sciences) |
| PNN - 100 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PNN - 115 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PNN - 116 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PNN - 117 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PNN - 207 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) Medical Assistant - Medical Assistant (Diploma) |
| PNN - 311 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PNN - 330 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PNN - 332 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PNN - 333 | Associate Degree Nursing-ADN - Associate Degree Nursing-ADN (Associate of Applied Sciences) Associate Degree Nursing-ADN - Practical Nursing (Diploma) |
| PTA - 111 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |

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| PTA - 113 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 120 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 150 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 194 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 195 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 211 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 212 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 231 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 248 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 284 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 310 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 311 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 412 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| PTA - 413 | Physical Therapist Assistant - Physical Therapist Assistant (Associate of Applied Sciences) |
| RCP - 100 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 260 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 315 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 350 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |

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| RCP - 410 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 561 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 565 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 600 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 680 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 690 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 875 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| RCP - 900 | Respiratory Care - Respiratory Care (Associate of Applied Sciences) |
| SDV - 161 | Interdisciplinary Studies AAS - (Associate of Applied Sciences) |
| TDT - 101 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) Truck Driving & Transportation Training - Truck Driving & Transportation Training (Certificate) |
| TDT - 115 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) Truck Driving & Transportation Training - Truck Driving & Transportation Training (Certificate) |
| TDT - 118 | Construction Equipment Operation - Construction Equipment Operation (Associate of Applied Sciences) Truck Driving & Transportation Training - Truck Driving & Transportation Training (Certificate) |
| TDT - 125 | Truck Driving & Transportation Training - Truck Driving & Transportation Training (Certificate) |
| TDT - 938 | Truck Driving & Transportation Training - Truck Driving & Transportation Training (Certificate) |
| WDV - 102 | Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Human Resource Management - Human Resource Management (Associate of Applied Sciences) Web Programming & Development - Web Programming & Development (Associate of Applied Sciences) |

| | |
|-----------|---|
| WDV - 105 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| WDV - 300 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| WDV - 600 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| WDV - 800 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| WDV - 930 | <p>Web Programming & Development - Web Programming & Development (Associate of Applied Sciences)</p> |
| WEL - 106 | <p>Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences)</p> |
| WEL - 201 | <p>Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences)</p> |
| WEL - 228 | <p>Welding Technology/Welder - Certificate (Welding) (Certificate)</p> <p>Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma)</p> <p>Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma)</p> <p>Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences)</p> |
| WEL - 233 | <p>Welding Technology/Welder - Certificate (Welding) (Certificate)</p> <p>Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma)</p> <p>Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma)</p> <p>Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences)</p> |

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| WEL - 244 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 245 | Welding Technology/Welder - Certificate (Welding) (Certificate) Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 251 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 252 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 253 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 254 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 262 | Welding Technology/Welder - Certificate (Welding) (Certificate) Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 263 | Welding Technology/Welder - Certificate (Welding) (Certificate) Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) |

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| | (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 274 | Welding Technology/Welder - Certificate (Welding) (Certificate) Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 275 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 280 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 281 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 296 | Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 303 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 339 | Industrial Automation Technology - Industrial Automation Technology (Associate of Applied Sciences) Industrial Automation Technology - Industrial Equipment Maintenance (Diploma) |

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| WEL - 344 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 345 | Welding Technology/Welder - Certificate (Welding) (Certificate) Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 353 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 374 | Welding Technology/Welder - Certificate (Welding) (Certificate) Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 375 | Welding Technology/Welder - Diploma 1 (Advanced Manufacturing Welding) (Diploma) Welding Technology/Welder - Diploma 2 (Intermediate Manufacturing Welding) (Diploma) Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 402 | CNC Machining & Tool-Making Technology - CNC Machining & Tool-Making Technology (Associate of Applied Sciences) |
| WEL - 701 | Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |
| WEL - 928 | Welding Technology/Welder - Welding Technology/Welder (Associate of Applied Sciences) |

NOI Approved Example

Notice of Intent Form

First Phase of New Program Proposal

This form is to be completed by the college originator upon consultation with an Education Program Consultant at the Iowa Department of Education

Institution: Southeastern

Date of Submission: 03/09/2018

Program Contact/Originator:

Name: Garcia, Teresa
Email: tgarcia@scciowa.edu
Phone:

College President/Chancellor: Dr. Michael L. Ash

IDOE Education Program Consultant(s): Zoe Thornton

Date(s) of IDOE Consultation: 03/09/2018



Community Colleges

Grimes State Office
Building
Des Moines, Iowa
50319-0146
Phone: 515-281-8260
Fax: 515-242-5988
www.educateiowa.gov

PROGRAM INFORMATION

Program Title and Codes

Full State (CIP) Title: Pharmacy Technician/Assistant.

CIP Number (10 digit): 5108050100

Instructional Level: 03

Type of Program: 32

Special Emphasis: 11

Object/Purpose: 03

Anticipated Start Date: 08/15/2018

Anticipated Annual Enrollment: 20

Anticipated Annual Completers: 20

Program Options

Pharmacy Technology (Non-degree) (Diploma)

Information Discussed with IDOE Consultant

1. Iowa College(s) with Similar Program(s)

| College Name | Contact Information |
|-------------------|---------------------------------|
| North Iowa Area | Bratrud, Karo / 641-422-4277 |
| Iowa Lakes | Grandstaff, Barbara |
| Northwest Iowa | |
| Northwest Iowa | |
| Kirkwood | Rauch, Dena / (319) 398-5476 |
| Des Moines Area | Emmerson, Janet |
| Western Iowa Tech | Hargens, Diane |
| Indian Hills | Jones, Heidi |

Program Description

The Pharmacy Technology program prepares you to function as an allied health professional under the direction of a registered pharmacist in a hospital or retail pharmacy. Pharmacy technicians are responsible for measuring, mixing, counting, labeling, and recording amounts and dosages of medications, verifying prescriptions from physicians, and maintaining patient records and insurance information. You will receive hands-on training in a hospital or retail pharmacy, and be eligible to take the Pharmacy Technician Certification Examination after graduation. Indian Hills Community College will offer the award. This is a shared program between SCC and IHCC.

Award Option

| |
|---|
| PHARMACY TECHNICIAN (Certificate) |
| PHARMACY TECHNICIAN (Diploma) |
| PHARMACY TECHNICIAN (Diploma) |
| PHARMACY TECHNICIAN CERTIFICATE (Certificate) |
| Pharmacy Technician (Diploma) |
| PHARMACY TECHNICIAN (Diploma) |
| PHARMACY TECHNICIAN DIPLOMA (Diploma) |
| PHARMACY TECHNOLOGY (Diploma) |

2. Resources for Industry Standards and Benchmarks and/or related competencies

3. Program External Accreditation/Approval/Certification requirements

4. Additional Information

03/09/2018

IHCC is offering an established program of study, approved by the IDOE. They have entered into a sharing agreement with SCC, in which SCC students will complete the approved coursework through a combination of SCC and IHCC classes. IHCC will issue the award upon a student's successful completion of the program.

Chris Russell and Zoë Thornton consulted with the SCC team to complete the NOI for the shared program.

APPROVED

LMI Report



Community Colleges

Grimes State Office Building
Des Moines, Iowa
50319-0146
Phone: 515-281-8260
Fax: 515-242-5988
www.educateiowa.gov

Labor Market Information Worksheet To Accompany the New Program Notice of Intent Form (First Phase of the New Program Proposal Approval Process)

The "Program Approval Guidelines" is available at the Iowa Department of Education website: https://www.educateiowa.gov/sites/files/ed/documents/ProgramApprovalGuidelinesMay2014Version_0.pdf. Also, paper versions of program proposal documents are available on the IDOE website (Community Colleges > Program Approval) for reference, but not for submission.

**All proposals must be submitted electronically via CurricUNET;
However, this worksheet will not be subject to a 14-day Peer Review**

This Labor Market Information Worksheet is intended to serve as a guide for a college to analyze LMI related to a proposed new Career and Technical Education program. It is designed to determine and demonstrate program need and must accompany the Notice of Intent Form submitted to the Iowa Department of Education to initiate the New Program Approval process.

Please contact IDOE Program Consultant, Chris Russell (chris.russell@iowa.gov), for assistance with this worksheet or any phase of the CTE Program Approval Process.

Also, feel free to contact IDOE Program Consultant, Paula Nissen (paula.nissen2@iowa.gov), for assistance with specific LMI questions or for additional resources.

| | | | |
|---|---|-------------------|-------------|
| Institution: | Southeastern | | |
| Contact Person: | Garcia, Teresa | | |
| Email Address: | tgarcia@scciova.edu | Phone: | |
| Proposed <i>local</i> program Title(s)/Name(s) | Pharmacy Technology (Non-degree) (Dipl - Diploma) | | |
| CIP Code: | 5108050100 | ITSO Code: | 03 32 11 03 |

The resources below are provided for use while completing the questions that follow:

Labor Market Information Resources

Economic Development and Employer Planning System (EDEPS): www.edeps.org

Iowa Occupational Projections: <http://iwin.iwd.state.ia.us/iowa/ArticleReader?itemid=00003928>

NOTE: The Excel version is more useful than the PDF and the "Statewide" information is more comprehensive

Iowa Hot Jobs: <https://www.iowaworkforcedevelopment.gov/2012-2022-hot-jobs-statewide-2015-wages>

Iowa Workforce NEeds Assessment: <http://www.iowaworkforce.org/lmi/labsur/vacancy.htm>

O*Net OnLine (partner of americanjobcenter network): <http://www.onetonline.org/find/career>

mySkills myFuture (partner of americanjobcenter network): <http://www.myskillsmyfuture.org/>

NOTE: This is a comprehensive website for needs assessment and student career planning.

Iowa Community College Program Outcomes: <https://www.educateiowa.gov/iowa-community-college-program-outcomes>

Please use the LMI resources above, college data, local/regional economic studies or needs assessments, or IDOE data reports to answer the following questions designed to determine and demonstrate program need. You may also incorporate student, local industry, or other institutional documentation in the form of surveys or letters of support for the proposed program.

For resources, other than those above, please provide website links in item #10 or attach documentation.

1. What are the employment opportunities for program completers?

In the chart below, "Regional" means your college service region/counties and "State" is Iowa; however, you may report bordering states' data, if applicable. "National" data is only necessary if career mobility is common in the proposed program's related occupations.

Also, please note if the job listed is "Non-traditional by Gender", meaning has less than 25% of one gender in the workforce.

| Occupation's Related Job Title(s) | Annual Openings (Number) | | | Iowa's Annual Supply* (Number of awards) | | | Average Entry-Level Salary | Non-traditional by Gender |
|-----------------------------------|--------------------------|-------|----------|--|-----------|-----------|----------------------------|---------------------------|
| | Regional | State | National | Bachelor | Associate | Dipl/Cert | | |

*Annual Supply is the number of completers of all postsecondary programs as reported through the National Center for Education Statistics or on the [EDEPS](#) and/or [Q*Net Online](#) links above.

2. What is the short-term (2-5 years) and long-term (10 yr.) growth rates for the job title(s) in item #1?

| Job Title | Short-term Growth Rate (Percentage) | | | Long-term Growth Rate (Percentage) | | |
|-----------|-------------------------------------|-------|----------|------------------------------------|-------|----------|
| | Regional | State | National | Regional | State | National |

Primary LMI Resource: [Iowa Occupational Projections \(Long-term and Short-term link\)](#) & [Iowa Hot Jobs](#)

3. For the job title(s) in item #1, what are the minimum educational requirements (postsecondary education - certificate, diploma, associate or bachelor's degree; work experience; training in the form of clinical, internship, apprenticeship, OTJ training)?

Primary LMI Resource: [Iowa Occupational Projections \(see the Legend on bottom of the tables provided\)](#)

4. List any professional credential(s) required by the state of Iowa (or bordering state) for employment in this occupation

N/A

Primary Resources: <https://www.iowaworkforcedevelopment.gov/iowa-licensed-occupation-information-2015> (Links to other sites)

5. Any occupation with less than 25% of one gender in the workforce is identified as "Nontraditional by Gender." Are any of the job titles in item #1 identified 'nontraditional by gender'?

Yes No

Primary LMI Resource: [EDEPS \(Nontraditional Occupations link\)](#)

6. How many individuals completed the proposed CIP program in Iowa over the last two (2) years? (List each community college and the number of degree/award recipients for each.)

| Year (2 years) | Community College | Type of Award(s) Granted (Check all that apply) | Total Number of Completers |
|----------------|-------------------|---|----------------------------|
|----------------|-------------------|---|----------------------------|

Primary LMI Resource: [IDOE > Community College SharePoint site \(request from IDOE Consultant\)](#)

7. Answer the following questions regarding Career Pathways, Academies, and Articulation Agreements that may apply to the proposed program:

a. What are the existing or potential secondary pathways or articulation agreements?

N/A

b. What are the existing or potential postsecondary articulation agreements that permit program completers to advance their education in this or related programs of study?

This is a shared program between SCC and IHCC. IHCC will issue the award.

c. What are the potential collaborative/shared program with peer institutions that could limit duplication or the proliferation of funds/resources?

This is a shared program between SCC and IHCC. IHCC will issue the award.

8. If this is a program that requires clinical, internship, apprenticeship, or other supervised work experience for completion:

a. Do you anticipate there may be a need for sites outside of your service region?: Yes

b. If yes, what collaborative efforts have or will you discuss with peer institutions?

This is a shared program between SCC and IHCC. IHCC will issue the award. IHCC will organize and oversee clinical placement of SCC students in SCC region.

9. Please provide additional LMI that may be relevant to the establishment of this program. (e.g., It is a heavily self-employed occupation; it is a high turn-over occupation that will have many vacancies in the future (list where, when, and how many expected annual vacancies); there is a severe shortage of workers in this occupation in our service region; there is a new company/business moving into our service region that needs trained employees in this occupation.)

Possible LMI Resource: [Iowa Workforce Needs Assessment or a college/local Needs Assessment](#)

This is a shared program between SCC and IHCC. IHCC will issue the award.

10. Please provide additional information you would like the IDOE to consider regarding the need for this program to be offered at your college and your ability to deliver a quality program that will prepare students for gainful employment.

This is a shared program between SCC and IHCC. IHCC will issue the award.

11. Please list any additional resources that you used in addition to those provided in the box below. Please provide links if

they are accessible via the internet

This is a shared program between SCC and IHCC. IHCC will issue the award.

ICCPHSE Form Example

IOWA COORDINATING COUNCIL FOR POST-HIGH SCHOOL EDUCATION (ICCPHSE) NOTICE OF INTENT TO OFFER A NEW PROGRAM OR LOCATION

SUBMIT THIS COMPLETE FORM AS AN E-MAIL ATTACHMENT TO: iccpkse-notice@iastate.edu

| | |
|---|--|
| 1. Name of institution | Des Moines Area Community College |
| 2. Address | 2006 South Ankeny Blvd. Ankeny, IA 50021 |
| 3. Name of contact person | Emmerson, Janet |
| 4. Address | 2006 South Ankeny Blvd. Ankeny, IA 50021 |
| 5. Phone and fax numbers | |
| 6. E-mail address | jeemmerson@dmac.edu |
| 7. Date | 09/26/2018 |
| 8. Proposed program name | Informatics. |
| 9. Brief program description | Informatics develops new uses for information technology. It is the study of how people transform technology, and how technology transforms us. In many ways Informatics is a bridge connecting IT to a particular field of study, such as biology, chemistry, fine arts, telecommunications, geography, business, economics, journalism, medical sciences, etc. This certificate prepares students to work in their area of specialization as business analysts, technology specialists, technical trainers, technology specialists, technical trainers, technology managers, quality assurance, etc. For more information about the Informatics Certificate please visit our website at: https://www.dmac.edu/it/Pages/cis.aspx . |
| 10. Proposed program location | Des Moines Area Community College |
| 11. Certificate/degree level | Certificate |
| 12. CIP number | 1101041000 |
| 13. Projected date for implementation of new program or location. | 08/15/2018 |
| 14. Projected first-year enrollment of new program or location | 20 |
| 15. Projected fifth-year enrollment of new program or location | 10 |
| 16. Projected number of graduates by year 5 of new program or location | 50 |
| 17. Describe the state and/or national workforce need and/or demand for graduates of the proposed program currently and | This is a reclassification of the Informatics Certificate from CIP11.1003 to CIP110104 working with the DE. |

| | |
|--|--|
| in the foreseeable future. Identify source(s) used to estimate need and demand. | |
| 18. List public and private institutions in the state which have similar offerings. | |
| 19. List same or similar programs in new location. | |
| 20. If this program exists elsewhere in the state, describe unique features of this program and/or additional need for this program or new location. | This is a reclassification of the Informatics Certificate from CIP11.1003 to CIP110104 working with the DE. |
| 21. Delivery system | <input checked="" type="checkbox"/> On Campus <input type="checkbox"/> Off Campus - face-to-face <input type="checkbox"/> Off Campus - online <input type="checkbox"/> Hybrid/Blended (Face-to-face & online) |
| 22. Additional comments | This is a reclassification of the Informatics Certificate from CIP11.1003 to CIP110104 working with the DE. |