DAA 1750
Dance Conditioning, 1 credit hour, 30 lab. (Offered as needed)
To increase technical skills through conditioning skills appropriate for dancers. Dance conditioning is an excellent course to improve fundamentals for the beginning/intermediate student. This course may be taken up to four (4) times for credit.

DAA 1905
Directed Individual Study – Dance, 1 credit hour, 30 lab. (Offered as needed)
A defined independent study in dance which is pursued under supervision of a faculty dance instructor and recorded through departmental procedures. Designed to permit a student to pursue non-scheduled dance activity work which may be of a specialized nature and not available through classes or courses available in a college schedule. Prerequisite: Departmental approval is required. This course may be taken up to two (2) times for credit.

DAA 2202
Advanced Ballet, 2 credit hour, 15 lec./30 lab. (Offered as needed)
Advanced Ballet is a two-credit academic course. It meets for three hours per week and can be taken for credit four times. The student must have reached a high level of physical strength, mastery of skills, and technical knowledge in order to be eligible for placement in this section. Prerequisites: DAA 1201 and/or appropriate level of competency. This course may be taken up to four (4) times for credit.

DAA 2220
Pointe, 1 credit hour, 30 lab. (Offered as needed)
Pointe is a one-credit academic course. It meets two hours per week and can be taken for credit four times. The student must already have mastered advanced terminology and movement vocabulary for ballet in order to be prepared for the physical demands of dancing on Pointe. Prerequisite: DAA 2202 and/or appropriate competency level. This course may be taken up to four (4) times for credit.

DAA 2581
Musical Theatre Dance II, 1 credit hour, 30 lab. (Offered as needed)
The continued study of Musical Theatre dance techniques and styles as related to a specific performance experience. Students must participate in rehearsals and performances. Prerequisite: Level of competency determined by audition. This course may be taken up to four (4) times for credit.

DAA 2610
Dance Composition, 2 credit hours, 15 lec./30 lab. (Offered as needed)
This course encourages the student to explore and compose dance by improving technical skills, developing improvisation and choreographic skills, and enhancing performance skills. Prerequisites: At least one semester of Modern Dance or department audition. This course may be taken up to four (4) times for credit.

DAA 2682
Dance Workshop II, 1 credit hour, 30 lab. (Offered as needed)
Continued instruction and participation in dance as required by specific Music Theatre productions. This course may be taken up to four (4) times for credit. Prerequisite: A demonstration of competence required. This course may be taken up to four (4) times for credit.

DAA 2683
Performance Dance, 1 credit hour, 30 lab.. (Repertory and/or Original Choreography)
DAA 2683 involves the continuation of study and practice of selected works of dance repertory and/or original choreography culminating in public performance. May be taken four (4) times for credit. Prerequisite: Demonstration of competence required.

DAA 2930
Dance – Special Topics, 3 credit hours, 45 lec. (Fall, Spring, Summer)
A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

DEP 2004
Human Growth and Development, 3 credit hours, 45 lec. (Fall, Spring, Summer)
A research oriented course in human development, covering the life span of the human being from conception to death. Special emphasis placed upon the interrelationships of the stages of development of the normal person.

DEP 2100
Child Growth and Development I, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment, principles and theories of development.

ECO 2013
Economics I, 3 credit hours, 45 lec. (Fall, or as needed)
Macroeconomics. Basic concepts and principles, national income accounting; fiscal and monetary policy and application, growth economics. Will satisfy General Education elective. Basic math skills required.

ECO 2023
Economics II, 3 credit hours, 45 lec. (Spring, or as needed)
EDF 1005
Introduction to Education, 3 credit hours, 45 lec. (Fall, Spring)
A study of the history, philosophy and social context of education. The course will help the student think critically about the process of education and his/her role as an educator. Student will observe and participate in the educational settings of local schools. (Plus 30 hours field experience.)

EDG 2701
Teaching Diverse Populations, 3 credit hours, 45 lec. (Fall, Spring)
This course will provide the student with the opportunity to explore personal values and attitudes toward cultural diversity. Designed for the prospective educator, the theoretical component will examine the issues of teaching in culturally diverse classrooms. Field experience and examination of educational materials will enhance the student's understanding of multiculturalism. (Plus 30 hours field experience) Prerequisite: EDF 1005.

EDP 2002
Educational Psychology, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Significant aspects of the growth and development of children and youth, including physical, social, and intellectual developments as they affect behavior patterns. Psychology as applied in improving the learning process.

EET 1003C*
Electronics for Drafters, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
An introductory course in electronics for drafter designers and beginning electronics technicians; designed to provide a basic understanding of electronic principles, theories and concepts.

EEX 2010
Introduction to Exceptional Children, 3 credit hours, 45 lec. (Offered as needed)
Study of incidence, nature, etiology and services available in connection with exceptional children including: hearing and speech problems; learning disabilities; mental retardation; blind; physically handicapped, gifted, emotional conflicts, also parents of exceptional children.

EGS 1110C
Engineering Graphics, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
Use of instruments, lettering practice; geometric construction; multiview projection and conventions, auxiliary views, section views, axonometric and oblique projections, rotation, patterns and development, and methods of reproduction. Prerequisite: ETD 1100 or equivalent: prerequisite only applies to Architectural Drafting and Design students.

EGS 1130C
Descriptive Geometry, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
Basic principles of orthographic projection, auxiliary views and rotation as they apply to points, lines and planes in space; addition of coplanar and non-co-planar vectors; intersections and developments; and selected abstract, exponometric and oblique projection, and practical problems. Prerequisite: EGS 1110C or equivalent.

EME 2040
Introduction to Educational Technology, 3 credit hours, 45 lec. (Fall, Spring, Summer)
This course will develop competencies necessary to integrate technology into classroom instruction. Students will survey a variety of instructional technology materials, software, and systems, as well as learn to use these in the classroom environment.

ENC 1101
English Composition I, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Instruction and intensive practice in expository and argumentative writing including a documented paper. The student will practice all CLAST essay and language skills as part of the essay process. Writing-Across-the-Curriculum course requiring a minimum of 6,000 words of writing. If used to meet AA Gordon Rule requirements for general education, a minimum grade of “C” is also required. Prerequisite: A passing score on a standardized placement test measuring communications/verbal achievement or successful completion of ENC 0080 and/or LIN 1670 with a grade of “C” or better.

ENC 1102
English Composition II, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Interpretative and critical reading of fiction (novel, novella, short story), drama, and poetry. Practice in the writing of analytic discourse. Practice in writing the research paper. The student will practice all CLAST essay and language skills as part of the essay process. Writing-Across-the-Curriculum course requiring a minimum of 6,000 words of writing. If used to meet AA Gordon Rule requirements for general education, a minimum grade of “C” is also required. Prerequisite: Completion ENC 1101 or an equivalent course with a grade of “C” or better.

ENC 1104
CLAST Review: Essay Skills, 1 credit hour, 15 lec. (Offered as needed)
A short course specifically designed to prepare students to write fifty-minute timed essays that conform to CLAST standards. The course is conducted as a self-study under the supervision of the CLAST Coordinator.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

◦ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

△ Technology-Across-the-Curriculum Course
ENC 1105
CLAST Review: English Language Skills, 1 credit hour, 15 lec. (Offered as needed)
A short course designed to prepare students to take or retake the CLAST English Language Skills sub-test. The course is conducted as a self-study utilizing the tutorial services in the Academic Success Center.

ENC 2210
Technical Report Writing, 3 credit hours, 45 lec. (Offered as needed)
This course covers the fundamentals of technical report writing, mechanics, and style. Various types of reports are prepared, and criteria for evaluating the adequacy of the various components of these reports are utilized. The course also includes reading and analysis of technical literature as well as oral reporting. Prerequisite: passing score on placement test.

ENG 1001
Research Papers, 1 credit hour, 16 lab. (Fall, Spring, Summer)
A learn-by-doing course in the methods of conducting library research and writing a documented paper. Students will work in the library on self-selected subjects under the supervision and guidance of the instructor in a tutorial relationship. For successful completion, each student will write a documented paper in accordance with a standard system.

NOTE: If this course is used to satisfy Writing-Across-the-Curriculum requirements for transfer course to OWCC, a 6,000 word paper with a minimum grade of “C” is required. Student may use this course to satisfy deficiency in 6,000 word Gordon Rule writing requirement, but it may not be used in lieu of traditional Gordon Rule courses, such as ENC 1101.

ENC 1105
CLAST Review: English Language Skills, 1 credit hour, 15 lec. (Offered as needed)
A short course designed to prepare students to take or retake the CLAST English Language Skills sub-test. The course is conducted as a self-study utilizing the tutorial services in the Academic Success Center.

ENC 1105
CLAST Review: English Language Skills, 1 credit hour, 15 lec. (Offered as needed)
A short course designed to prepare students to take or retake the CLAST English Language Skills sub-test. The course is conducted as a self-study utilizing the tutorial services in the Academic Success Center.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

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Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

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Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.

ENG 1101
Introduction to Technical Drawing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamental principles of the graphic language (the language of industry) and is developed for students without previous mechanical drawing experience. Topics include: use and care of instruments, lettering, geometric construction, multiview projection, sketching techniques, inking, and methods of reproduction. Prerequisite: ENC 1101 and ETD 1110 or equivalent.
ETD 1313C* ∆
AutoCAD LT II, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
The second course in a series designed to develop skill and proficiency in the use of AutoCAD LT software to include: additional drawing commands, editing commands, modify commands, advanced display and inquiry commands, advanced dimensioning and annotation, advanced layering, block, attributes and X-Ref, paper space, UCS, data exchange and output files. Prerequisite: ETD 1312C or equivalent.

ETD 1350C* ∆
AutoCAD 3-D Modeling I, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A basic course in mechanical design using basic computer geometry techniques. Topics will include: orthographic projections, space relationships of points, lines, planes and revolution of objects. Additional coverage will include principles of surface generation, intersections, wire modeling, and solid modeling techniques. Prerequisite: ETD 1311C or equivalent.

ETD 1614*
Electromechanical Drafting, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course in the fundamentals of electronics drafting covering such topics as: using electronic symbols, schematic diagrams, connection diagrams, block and logic diagrams, WW board drawings, chassis drawings, and pictorial drawings. Prerequisite: ETD 1111 or equivalent.

ETD 1653*
PCB Drafting, 3 credit hours, 15 lec., 60 lab. (Offered as needed)
A course to teach students principles of printed circuit board design, layout, and tape-on. Topics covered include: schematics logic, single side boards, multi-layer boards, art-masters, fabrication drawings, and silkscreen masters. Prerequisite: ETD 1310C or equivalent.

ETD 1654*
Intermediate Printed Circuit Board Drafting, 3 credit hours, 15 lec., 60 lab. (Offered as needed)
A course to teach students principles of printed design and documentation through the use of a computer. Prerequisite: ETD 1653 or equivalent.

ETD 1700*
Drafting III, 6 credit hours, 15 lec., 150 lab. (Offered as needed)
A course in the fundamentals of Mechanical and Machine Drafting. Topics covered include: Geometric dimensioning and true positional tolerancing; threads, nuts, bolts, screws, gears, cams and springs, drafting standards, and preparation of working drawings. Prerequisite: ETD 1311C, and ETD 2218 or equivalent.

ETD 1710*
Fundamentals of Dimensioning & Tolerancing, 4 credit hours, 60 lec. (Offered as needed)
A course designed to help students develop the basic fundamentals of dimensioning and tolerancing. Topics include: dimensioning systems such as; metric, decimal, fractional-inch, foot and inch, tolerancing methods, limits and tolerances, tolerancing accumulation, dimensioning practices, and standards fits. Prerequisite: for Drafting and Design student course should be taken with ETD 1100.

ETD 1801C*
Technical Illustration, 3 credit hours, 15 lec., 45 lab. (Offered as needed)
The purpose of this course is to help students develop the skills, knowledge, and attitudes necessary to be job entry-level qualified as technical illustrators. Prerequisites: ETD 1221 or EGS 1130C, and ETD 1311C.

ETD 1811C ∆
Corel Draw I, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
Class will focus on organization of two-dimensional space in regard to the plane. Study and hands-on projects both in artistic media and on computer will include the following: Comprehensive usage of this vector-based drawing program to create professional artwork – from single logos to intricate technical illustrations. Topics such as perspective and the creation of depth on the two dimensional surface will be included as well. Students will investigate the use of computer graphics disciplines emphasizing illustration and the principles of color and design. Students will also be expected to complete five individual projects related to the coursework. The presentation of these projects to the class will include both written and visual materials. Students will generate a portfolio of computer art and are encouraged to broaden perspectives and to think creatively. Class will serve as introduction to use of Corel Draw.

ETD 1842C*
Computer Rendering I, 3 credit hours, 30 lec. 30 lab. (Offered as needed)
A basic course in rendering techniques using accurender software. Topics include: The walkthrough window, AutoCAD views, move in the Ray Trace View, viewing the model, Rendering the model, assigning materials, lighting your model and printing. Prerequisite: ETD 1350C.

ETD 2011*
Industrial Print Reading, 1 credit hour. (Offered as needed)
The beginning level aspects of reading industrial prints such as drawing notes, title blocks, revision blocks, legends, schedules, multiviews, and parts list.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

∆ Technology-Across-the-Curriculum Course
ETD 2218*  
Geometric Dimensioning & Tolerancing, 4 credit hours, 60 lec. (Offered as needed)  
An introductory course in geometric dimensioning and tolerancing using the geometric method nationally accepted according to ASME Y14.5M. Topics covered include: definition and terms, symbols, datum referencing, locational tolerancing, form tolerancing, profile tolerancing, orientation and runout tolerancing, and math for positional tolerancing. Prerequisites: ETD 1710 and ETD 1221 or equivalent.

ETD 2219*  
Advanced Geometric Dimensioning & Tolerancing, 4 credit hours, 60 lec. (Offered as needed)  
An advanced course in geometric dimensioning and tolerancing using the geometric method nationally accepted according to ASME Y14.5M. Topics covered include: definitions and terms, symbols, datum referencing, locational tolerancing, form tolerancing, profile tolerancing, orientation and runout tolerancing, math for positional tolerancing, quality assurance methods and techniques, and manufacturing methods and techniques. Prerequisite: ETD 2218 or equivalent.

ETD 2250*  
Tolerance Stacks I, 4 credit hours, 60 lec. (Offered as needed)  
A course for engineers, designers, inspectors and other engineering personnel. This course consists of learning how to perform tolerance accumulation studies within a part or assembly to include: Coordinate dimension stacks and stacks involving geometric tolerancing. Prerequisite: ETD 2218 or equivalent.

ETD 2251*  
Tolerance Stacks II, 4 credit hours, 60 lec. (offered as needed)  
A second course for engineers, designers, inspectors and other engineering personnel. The course continues the learning and adds more advanced concepts relative to performing tolerance accumulation studies within a part or assembly to include: coordinate dimension stacks and stacks involving geometric tolerancing. Prerequisite: ETD 2219 and ETD 2250 or equivalent.

ETD 2328C*  
Introduction to MicroStation, 3 credit hours, 30 lec., 30 lab. (Offered as needed)  
A basic course in mechanical design using basic computer geometry techniques. Topics will include orthographic projections, space relationships of points, lines, planes and revolution of objects. Additional coverage will include principles of surface generation, intersections, wire modeling, and solid modeling techniques. Prerequisite: ETD 1100 or EGS 1110C or equivalent.

ETD 2352C*  
AutoCAD III, 3 credit hours, 30 lec., 30 lab. (Offered as needed)  
An advanced course designed to help students develop proficiency in the area of computer aided drafting and systems drafting. Topics covered include: transfer drawings, digitized drawings, explanatory drawings, multiview projections, exploded assemblies, pictorial drawings, auxiliary views, sections, details, geometric dimensioning and tolerancing, and CADD concepts. Prerequisites: ETD 1311 and ETD 1221 or EGS 1130C.

ETD 2355C*  
AutoCAD 3-D Modeling II, 3 credit hours, 30 lec., 30 lab. (Fall, Spring)  
An advanced course in mechanical design using advanced computer techniques. Contents will include: 3D concepts, wire modeling, surface generation techniques, and solid modeling techniques. Prerequisite: ETD 1350C or equivalent.

ETD 2356C*  
MicroStation II, 3 credit hours, 30 lec., 30 lab. (Offered as needed)  
A second course in mechanical design using basic and intermediate computer geometry techniques. Topics will include: Orthographic projections, space relationships of points, lines, planes and revolution of objects. Additional coverage will include principles of surface generation, intersections, wire modeling, and solid modeling techniques. Prerequisites: ETD 2328C or equivalent.

ETD 2365C*  
Mechanical Desktop I, 3 credit hours, 30 lec., 30 lab., (Offered as needed)  
A basic course in Parametric Solid Design, using AutoCAD Mechanical Desktop Software. Topics include: Basic concepts of Parametric Sketching, Part Creation, Surface Creation and Editing, Basic Concepts of Combining Parts. Prerequisite: ETD1350C or equivalent.

ETD 2366C*  
Mechanical Desktop II, 3 credit hours, 30 lec., 30 lab., (Offered as needed)  
The second course in a series designed to develop skill and proficiency in Parametric Solid Design, using AutoCAD Mechanical Desktop Software. Topics include: Creating Drawing Views, Creating Table Driver Parts, Creating Shells; and assembling parts. Prerequisite: ETD 2365C or equivalent.

ETD 2377C*  
3D Studio Max I, 3 credit hours, 30 lec., 30 lab, (Offered as needed)  
Course is designed to use 3D Studio in rendering, and animation as a dynamic visualization tool for AutoCAD design images. Upon completion of this course, the user will be able to navigate through the modules of the program, model simple projects, set up scenes for rendering and animation, assign materials to objects, and define simple motion paths, input and output techniques. Prerequisite: ETD 1350C or equivalent.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

Δ Technology-Across-the-Curriculum Course
ETD 2534*
Construction Drafting, 6 credit hours, 30 lec., 120 lab.
(Offered as needed)
A course to prepare students to develop shop drawings for large construction projects. Topics covered include: steel, precast concrete, prestressed concrete, poured-in-place concrete, and heavy timber construction projects. Prerequisites: EGS 1110C or ETD 1111 or equivalent.

ETD 2542*
Structural Drafting, 3 credit hours, 15 lec., 60 lab.
(Offered as needed)
A course in the fundamentals of structural drafting including: an overview of structural drafting, prestressed concrete drafting, structural steel drafting, and poured on-site concrete drafting. Prerequisite: TAR 2121C or equivalent.

ETD 2543C*
Structural Drafting II, 3 credit hours, 15 lec., 60 lab.
(Offered as needed)
An advanced course in structural drafting covering prestressed concrete drafting, structural steel drafting, and poured-on-site concrete drafting for large commercial and industrial buildings as well as bridges, parking decks, towers, and stadiums. Prerequisite: ETD 2542 or equivalent.

ETD 2655*
Advanced Printed Circuit Board Drafting, 3 credit hours, 15 lec., 60 lab. (Offered as needed)
A course to teach students advanced principles of printed design and documentation through the use of a computer. Prerequisites: ETD 1654 or equivalent.

ETD 2705*
Advanced Mechanical Drafting, 3 credit hours, 30 lec., 30 lab hours. (Offered as needed)
An advanced course covering mechanical drafting, machine design, advanced dimensioning and tolerancing, and working drawings according to MIC and ASME standards. Prerequisites: ETD 1700, ETD 2218, or equivalent.

ETD 2802C*
Technical Illustration II, 3 credit hours, 30 lec., 30 lab.
(Offered as needed)
The purpose of this course is to help students develop advanced skills, knowledge, and attitudes necessary as technical illustrators, to include oblique, and axiometric projections, perspective and exploded pictorial drawings, and related techniques. Prerequisites: ETD 1801C and ETD 1311C or equivalent.

ETD 2843C*Δ
3D Computer Rendering II, 3 credit hours, 30 lec., 30 lab., (Offered as needed)
An advanced course in rendering techniques using 3D modeling software. Topics include: Radiocity, landscape for realism, decals, backgrounds, environments, panoramas and animation. Prerequisite: ETD 1842C.

ETD 2905*
Independent Study – Drafting, 1 credit hour (Fall, Spring, Summer)
Practical treatment of special geometry, graphics, and design. Emphasis on individual work projects utilizing such graphical techniques as orthographic projection, perspective drawing, auxiliary views, topographic drawing, and graphing. Prerequisites: EGS 1110C and ETD 1111 or permission of instructor. This course may be taken up to four (4) times for credit.

ETG 1110*
Electronics Computations, 4 credit hours, 60 lec.
(Offered as needed)
This course is designed to provide practical application of computations relating directly to electronics. It provides active, intensive application of basic mathematical theories and formulas to the analysis and solution of real world electronics problems. Prerequisite: MAT 1033A or equivalent.

ETG 1941*
Internship I – Technical Education, 3 credit hours, 225 lab hours (Offered as needed)
On-the-job training in the Applied Associate of Science Degree program in which the student is actively enrolled. The student works under a qualified supervisor on a job related to his/her degree program. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness, and total performance. A project paper or approved project will be submitted by the student two weeks prior to the end of the semester.

ETG 1942*
Internship II – Technical Education, 3 credit hours, 225 lab hours (Offered as needed)
On-the-job training in the Applied Associate of Science Degree program in which the student is actively enrolled. The student works under a qualified supervisor on a job related to his/her degree program. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness, and total performance. A project paper or approved project will be submitted by the student two weeks prior to the end of the semester.

ETG 1943*
Internship III – Technical Education, 3 credit hours, 225 lab hours (Offered as needed)
On-the-job training in the Applied Associate of Science Degree program in which the student is actively enrolled. The student works under a qualified supervisor on a job related to his/her degree program. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness, and total performance. A project paper or approved project will be submitted by the student two weeks prior to the end of the semester. On the job experience is built upon experiences gained through course ETG 1941. Prerequisite: ETG 1941.

ETG 1942
Δ Technology-Across-the Curriculum Course

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

Δ Technology-Across-the Curriculum Course
ETG 1944*  
Internship IV – Technical Education, 3 credit hours, 225 lab hours (Offered as needed)  
On-the-job training in the Applied Associate of Science Degree program in which the student is actively enrolled. The student works under a qualified supervisor on a job related to his/her degree program. The supervisor will rate the student’s performance, knowledge, comprehension, dependability, initiative, cooperativeness, and total performance. A project paper or approved project will be submitted by the student two weeks prior to the end of the semester. On the job experience is built upon experiences gained through course ETG 1943. Prerequisite: ETG 1943.

ETI 1411*  
Advanced Manufacturing Processes, 3 credit hours, 45 lec. (Offered as needed)  
This course presents the numeric and computer numeric control of various machining processes and the use of computer programming in the machine shop. Included are shop safety, program preparation, milling, drilling, subroutines, coordinate systems and other related topics.

ETI 1710*  
Occupational Safety, 3 credit hours, 45 lec. (Offered as needed)  
A basic course in occupational safety and health covering such topics as: theories of accident causation; workplace hazards; hazard analysis and prevention; accident reporting; OSHA; ergonomics; product safety; workers’ compensation; and stress on the job.

ETI 1713*  
Implementing Total Safety, 3 credit hours, 45 lec. (Offered as needed)  
A course on implementing the total Safety Management (TSM) approach to workplace safety and health. Major topics include the TSM Steering Committee, TSM Facilitator, and improvement project teams (IPTs).

ETI 1715*  
Environmental Safety, 3 credit hours, 45 lec. (Offered as needed)  
A course on protecting the environment from hazardous processes, products, and by-products of business and industry. The primary focus of the course is the ISO 14000 standard.

ETI 2110*  
Quality Tools I, 3 credit hours, 45 lec. (Offered as needed)  
This is a comprehensive course designed to increase the students’ knowledge and skill in all aspects of quality control. The course provides a variety of the basic skills that contribute to the outgoing quality in the mechanical trades. Included are: quality functions, quality personnel, shop mathematics, understanding blueprints, measuring tools, their use and other related topics.

ETI 2111*  
Quality Control II, 3 credit hours, 45 lec. (Offered as needed)  
This course is a continuation of Quality Tools I with an emphasis on inspection methods and layout techniques. Included also are quality costs, planning, probability, statistical control and other related topics.

ETI 2117*  
Introduction to Total Quality, 3 credit hours, 45 lec. (Offered as needed)  
This course covers the fundamentals of Total Quality including the following: quality culture, customer focus, employee empowerment, team building, decision making, problem solving, conflict management, quality tools, benchmarking, continuous improvement, quality function deployment, Statistical Process Control, Just-In-Time Manufacturing, and Implementing Total Quality.

ETI 2118*  
Implementing Total Quality, 3 credit hours, 45 lec. (Offered as needed)  
This course covers all 20 steps required to implement Total Quality in any type of organization. Emphasis is placed on specific requirements for implementation, the critical role of executive level leaders, and variation among organizations. Prerequisite: ETI 2117.

ETI 2131*  
Statistical Process Control, 3 credit hours, 45 lec. (Offered as needed)  
A course covering the fundamentals of SPC. Major topics include: rationale for SPC, inhibitors of SPC, management’s role in SPC, the quality tools, and control charts.

ETI 2940*  
Directed Work Study-Industrial-Technical, 1 credit hour, 45 lab. (Offered as needed)  
Directed experience in instructional, laboratory and/or materials assistance in a designated industrial-technical area. This course may be taken up to four (4) times for credit. Department chair approval required.

FAD 1123  
Adults in a Changing Society, 3 credit hours, 45 lec. (Fall, Spring, Summer)  
A course focusing on personal development and traditional or nontraditional career options available to adults in today’s changing society.

FRE 1000  
Practical French, 3 credit hours, 45 lec. (Spring term only)  
This course provides training for verbal mastery of French in practical situations as well as instruction in contemporary francophone culture and in the historical and cultural significance of the French-speaking world. Students will research a French country/region.

FRE 1120*  
French I, 4 credit hours, 60 lec. (Fall term only)  
Principles and grammatical structures of French, with emphasis upon balanced development of all four skills—listening, speaking, reading, and writing. Covers all basic structures of the language.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

❖ This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.
FRE 1121 ♦
French II, 4 credit hours, 60 lec. (Spring term only)
Practical French for Travelers, 4 credit hours, 45 lec., 15 lab. (Spring term only)
French Literature, and development of conversational and writing skills. Prerequisite: FRE 1121 or its equivalent.

FRE 2010 ♦
Practical French for Travelers, 4 credit hours, 45 lec., 15 lab. (Spring term only)
This course provides training for verbal mastery of French in practical situations as well as instruction in contemporary francophone culture and in the historical and cultural significance of the French-speaking world. Instruction will be enhanced by the opportunity to visit a French-speaking locale for 6 to 10 days at the end of the semester.

FRE 2200 ♦
French III, 4 credit hours, 60 lec. (Fall term only)
Intermediate level review of grammar, readings in French Literature, and development of conversational and writing skills. Prerequisite: FRE 1121 or its equivalent.

FRE 2201 ♦
French IV, 4 credit hours, 60 lec. (Spring term only)
Completion of intermediate level review of grammar, readings in French literature, and development of conversational and writing skills. Prerequisite: FRE 2200 or its equivalent.

GEA 1000 ♦
World Regional Geography, 3 credit hours, 45 lec. (Offered as needed)
The course introduces the student to geographic regional studies. It will combine the concepts of physical geography and cultural, economic, and human geography as it applies to the differing regions of the world. It will show the relationships between the regional environment and the people who live there, between settlement patterns, economic patterns and cultural patterns within each region; and, using current events, it will show the impact of other phenomena upon those regions and their people. Relationships between the various regions will be highlighted, again using current events as the triggering element.

GEB 1011
Introduction to Business, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Designed to give students a broad understanding of the nature of business and a preliminary idea of the various areas of business specialization.

GEB 1136*
Foundations of e-Business, 3 credit hours, 45 lec. (offered as needed)
This course is designed to provide students with a managerial view of e-Business and e-Commerce.

GEB 1940*
Internship-Business, 3 credit hours, 90 lab. (Fall, Spring, Summer)
On-the-job training in the Associate of Science/Applied Science Option program in which the student is enrolled. The student is under the supervision at work of a qualified supervisor. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness, and total performance. A project paper or approved project will be submitted by the student three weeks prior to the close of the semester. May be repeated four times for a total of 12 credit hours.

GEB 2137*
e-Business – Models and Strategies, 3 credit hours, 45 lec. (offered as needed)
This course focuses on business models with particular focus on the Internet as a facilitator of commerce. Students will also become familiar with how macro environments impact e-commerce.

GEB 2138*
e-Business Law and Ethics 3 credit hours, 45 lec. (offered as needed)
This course focuses on legal and ethical issues involved in forming Web-based companies.

GEB 2441
Business Ethics, 3 credit hours, 45 lec. (Fall, Spring, Summer)
This course addresses the legal, moral, and societal issues of ethical conduct in the business environment. Actual case studies are used to illustrate appropriate relationships among employers, employees, customers, stockholders, and other business stakeholders. Topics include: codes of ethics, laws and regulations related to ethics, conflict of interest, and moral philosophies associated with ethical conduct.

GLY 1001
Earth Science, 4 credit hours, 60 lec. (Fall, Spring, Summer)
Survey of processes, materials and structure of the solid earth, oceanography, meteorology, and the relation of the earth to other planets. Intended for physical science general education requirement. Practical exercises in mineral and rock identification.

GLY 1001L
Earth Science Lab, 1 credit hour, 30 lab. (Fall, Spring, Summer)
Laboratory experiences pertaining to the physical environment: observation, measurement, data analysis, mapping, map interpretation, properties of earth materials. This is an optional course serving students who transfer to universities which require a laboratory course to satisfy the General Education requirement in Physical Science.

GLY 2010C
Physical Geology, 4 credit hours, 45 lec., 30 lab. (Offered as needed)
A study of the materials, surface feature, structure and processes of the solid earth. Labs in identification of rocks and minerals. Landforms will be analyzed from topographic and geologic maps. Actual landforms and processes will be studied on field trips and exercises.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

v This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.
GLY 2100C
Historical Geology, 4 credit hours, 45 lec., 30 lab.  
(Offered as needed)
A study of the history of the earth, including the origin of continents, mountains and ocean basins as recorded in rocks and fossils. A survey of the fossil record and changes in animal and plant life throughout geological time will also be studied.

GRA 1121C* Δ
Desktop Publishing I, 3 credit hours, 30 lec., 30 lab.  
(Offered as needed)
This beginning level publishing course on a Macintosh desktop computer will acquaint students with various software programs, clip-art, digital camera usage, and scanning; students will learn to produce flyers, ads, certificates, business cards, and other printed material.

GRA 1122C* Δ
Desktop Publishing II, 3 credit hours, 30 lec., 30 lab.  
(Offered as needed)
This course is a continuation of Desktop Publishing I; the primary focus will be on the use of the software program Pagemaker for more advanced applications on a Macintosh computer. Prerequisite: GRA 1121C.

GRA 1123C* Δ
Desktop Publishing III, 3 credit hours, 30 lec., 30 lab.  
(Offered as needed)
This course is a continuation of Desktop Publishing II. Advanced Pagemaker skills will be covered, including creation of Adobe PDF files. This is not a course for beginners. Prerequisites: GRA 1122C.

GRA 2100C* Δ
Computer Graphics I, 4 credit hours, 30 lec., 60 lab.  
(Offered as needed)
This course provides instruction and practical exercises in the use of graphics software Photoshop to create, modify and generate color graphics to produce illustrations and charts on a Macintosh desktop publishing system.

GRA 2140C* Δ
Multimedia I, 4 credit hours, 30 lec., 60 lab.  
(Fall, Spring, Summer)
An introductory course covering basic principles of design affecting interactive multimedia presentations. Students will learn an interactive media authoring software application and its interaction with other supporting software applications. Students will produce a complete interactive CD-ROM title. Prerequisites: ART 2602C and ART 1600C.

GRA 2141C* Δ
Multimedia II, 4 credit hours, 30 lec., 60 lab.  
(Offered as needed)
An advanced course covering principles of design affecting interactive multimedia presentations. Students will learn advanced functions of an interactive media authoring software application and supporting software. Students will produce a finished interactive CD-ROM title. Prerequisite: GRA 2140C.

GRA 2142C* Δ
Web Design/Graphics, 4 credit hours, 30 lec., 60 lab.  
(Offered as needed)
This course covers the designing, preparation, and the publishing of Home Pages using Hyper Text Markup Language (HTML) for the World Wide Web on the Internet, using Netscape as the browser. This course is taught from a graphics point-of-view using a Macintosh.

GRA 2143C* Δ
Advanced Web Design/Graphics, 4 credit hours, 30 lec., 60 lab., (Offered as needed)
An advanced course where students will study an industry standard WYSIWYG web site development tool. Students will produce more sophisticated user interactivity and page layout in a large website project. This course is presented from a graphic perspective. Prerequisite: GRA 2142C.

GRA 2156C* Δ
Computer Graphics II, 4 credit hours, 30 lec., 60 lab.  
(Offered as needed)
This course is a continuation of Computer Graphics I. Advanced Photoshop techniques and processes will be covered using a Power Macintosh desktop computer. This is not a beginning level course and requires prior knowledge/experience with Adobe Photoshop. Prerequisite: GRA 2100C.

GRA 2164C* Δ
Advanced Graphic Projects, 4 credit hour, 30 lec., 60 lab.  
(Offered as needed)
This course is designed for the advanced graphics student. The student will call upon skills/knowledge previously gained in other courses and software programs to produce several QTVR projects. This course will be considered a capstone in the progression of learning and is not a beginning level course. Prerequisite: GRA 2100C.

GRA 2173C* Δ
Projects in Graphic Design, 3 credit hours, 30 lec., 30 lab.  
(Offered as needed)
An advanced course utilizing the student’s full complement of skills and abilities. The student will work under the advisement of the faculty member to produce a large multifaceted project of their own design. Prerequisites: GRA 1121C, ART 1600C, GRA 2100C, and ART 2602C.

GRA 2210C* Δ
Pre-Press Assembly, 4 credit hours, 30 lec., 60 lab.  
(Offered as needed)
Classroom and lab experiences using a computer to prepare both spot and process color images, colorize artwork, and print separations; students will produce an 8-page booklet from beginning to end. Prerequisites: GRA 1122C and GRA 2100C.

GRA 2900* Δ
Independent Study – Graphic Art, 1 credit hour, 30 lab.  
(Offered as needed)
Practical treatment of Graphics/Printing Technology. Emphasis on individual work projects.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.
Δ Technology-Across-the Curriculum Course
GRA 2905* Δ
Independent Study – Graphics/Printing, 1 credit hour, 45 lab. (Offered as needed)
The student will initiate independent computer related work, utilizing various software and hardware. The course may be taken four times for credit.

GRA 2949* Δ
Directed Work Study – Graphics/Printing, 1 credit hour, 45 lab. (Offered as needed)
The student will complete computer-related work utilizing various computer-related hardware and software under the direct guidance of an instructor. This course may be taken four times for credit.

HFT 2210*  
Hospitality Management I, 3 credit hours, 45 lec.  (Offered as needed)  
An introductory study of problems originating in the operation and administration of various segments of the hospitality industry. Prerequisite: MAN 2021.

HFT 2211*  
Hospitality Management II, 3 credit hours, 45 lec.  (Offered as needed)  
A continuing study of the hospitality industry. Prerequisites: MAN 2021, HFT 2210.

HFT 2940*  
Hospitality Management – Internship I, 3 credit hours, 90 lab. (Offered as needed)  
A management internship program providing on-the-job management experiences in various phases of the hospitality industry.

HFT 2941*  
Hospitality Management – Internship II, 3 credit hours, 90 lab. (Offered as needed)  
A management internship program providing on-the-job management experiences in various phases of the hospitality industry.

HIM 1000*  
Introduction to Health Information Management, 3 credit hours, 45 lec. (Fall, Spring, Summer)  
Orientation to medical records history and professional associations. Confidentiality, filing, retrieving, indexing, numbering, storage and content of the medical record is also discussed. The course includes job search skills and professional job performance.

HIM 1270C*  
Medical Billing, 2 credit hours, 15 lec., 30 lab. (Summer)  
Introduction to computerized medical billing and reimbursement through various payors. Correct completion of HCFA 1500 forms will be emphasized. Prerequisite: HIM 1282, knowledge of basic computer & keyboarding skills.

HIM 1282*  
Basic Coding for Medical Records, 4 credit hours, 60 lec. (Fall, Spring)  
Development of nomenclature and classification systems and an introduction to ICD-9-CM and CPT coding. Introduces the student to Ambulatory Payment Classifications (APCs) and Diagnostic Related Groups (DRGs). Prerequisites: HSC 1531, BSC 1080.

HIM 2283C*  
Advanced Coding for Medical Records with Lab, 5 credit hours, 60 lec. 30 lab. (Spring & Summer)  
Advanced instruction in coding/ICD-9-CM diagnoses, and procedures in ICD-9-CM and CPT both manually and automated. Provides sequencing guidelines and rules and regulations in both the hospital and physician office setting. Prerequisites: HIM 1282, knowledge of basic computer and keyboarding skills.

HIM 2433*  
Pathophysiology, 4 credit hours, 60 lec. (Offered as needed)  
Introduction to the nature, cause, and treatment of disease entities and the body’s defense mechanisms. Commonly used drugs will also be introduced.

HLP 1081  
Wellness: Practice and Theory, 3 credit hours, 45 lec.  
Fall, Spring, & Summer  
A course designed to promote wellness through assessment, instruction and fitness programs which, if applied, will enable the individual to achieve and/or maintain a high quality of health and fitness throughout life. Based on assessment test results a physical examination by a physician may be recommended.

HSC 1100  
Health Education, 3 credit hours, 45 lec.  
Offered as needed  
A systematic and comprehensive coverage of basic factual material, concepts, terminology, and important trends in major health areas of concern today.

HSC 1400  
First Aid, 3 credit hours, 45 lec. (Offered as needed)  
Preparation to meet emergencies that occur in the school, home or on the highway. Instruction and practice in dressing and bandaging, care of wounds, shock, bone and joint injuries, cardiopulmonary resuscitation, transportation of the injured, oral poisoning and other medical emergencies.

HSC 1531  
Medical Terminology, 3 credit hours, 45 lec. (Offered as needed)  
An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.

Δ Technology-Across-the Curriculum Course
HUM 1020† ♦ Humanities – Introduction, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Techniques, forms, and basic evaluative tools related to music, the visual arts, poetry, drama, the dance, film, and philosophy or religion. Art works are utilized as much as possible. Writing-Across-the-Curriculum course requiring a minimum of 4,000 words of writing. If used to meet AA Gordon Rule requirements for general education, a minimum grade of “C” is also required. Prerequisite: A passing score on the standardized placement test measuring communication/verbal achievement or successful completion of ENC 0080 and/or LIN 1670 with a grade of “C” or better.

HUM 1905
Independent Study – Arts and Humanities, 1 credit hour (Offered as needed)
A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue nonscheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval is required. Placement test may be required.

NOTE: If this course is used to satisfy Writing-Across-the-Curriculum requirements for transfer courses to OWCC, a 4,000 word paper with a minimum grade of “C” is required. This course may be taken up to four (4) times for credit.

HUM 2251† ♦ Humanities – A Contemporary Perspective, 3 credit hours, (Fall, Spring, Summer)
This course is an integrated study of the artistic, cultural, philosophic, religious, social, and technological influences that shape modern western cultures in the modern era. The focus will begin with the 20th century and follow, chronologically, the issues of the modern era. Gordon Rule course which requires 4,000 words of writing and a minimum grade of “C” if used to satisfy Gordon Rule general education requirements. Prerequisite: A passing score on the standardized placement test measuring communication/verbal achievement or successful completion of ENC0080 and/or LIN 1670 with a grade of “C” or better.

HUM 2700 ♦ Humanities – Foreign Study, 3 credit hours, 15 lec., 60 lab. (Offered as needed)
A variable humanities content course designed to allow students first-hand learning experiences outside the United States. Writing-Across-the-Curriculum course requiring a minimum of 4,000 words of writing. If used to meet AA Gordon Rule requirements for general education, a minimum grade of “C” is also required. Prerequisite: A passing score on the standardized placement test measuring communication/verbal achievement or successful completion of ENC 0080 and/or LIN 1670 with a grade of “C” or better.

HUM 2920
Humanities Colloquium – 1 credit hour, 5 lec., 20 lab. (Fall, Spring, Summer)
Humanities Colloquium is a lab designed to introduce students to critical visual and listening skills to become an intelligent arts consumer. Initial lecture sessions are devoted to discussions of the elements of art works, music pieces, theatre performances, and dance presentations. Students will be required to attend selected OWCC Visual and Performance Arts presentations and to write a short critical review of each. Topics may vary. Prerequisite: Placement test may be required.

HUM 2930
Humanities – Special Topics, 3 credit hours, 45 lec. (Fall, Spring, Summer)
A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

HUN 2410A*
Child Nutrition and Health, 3 credit hours, 45 lec. (Offered as needed)
Methods of meeting physical needs of young children through nutrition and good health practices. Recognition of childhood diseases and care of the handicapped child.

ISS 1905
Independent Study – Social Science, 1 credit hour, 45 hours (Offered as needed)
Directed study and individual projects designed to meet the needs of students interested in a specialized area or the social sciences for which present course availability is limited. This course may be taken up to four (4) times for credit.

INR 2002
Current World Problems, 3 credit hours, 45 lec. (Offered as needed)
Critical world issues and immediate troubled areas against a historical, political, economic, and social background as an introduction to international relations. The individual student develops a special area of interest to explore in-depth the principles of international relations after their instruction.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.
† Courses listed with this symbol contain an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.
v This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.
∆ Technology-Across-the-Curriculum Course
LIN 1670
Writing and Grammar, 3 credit hours, 45 lec. (Fall, Spring, Summer)
The course includes practice in writing short essays and encompasses a comprehensive review of grammar and mechanics. Placement is determined by (1) a grade of “C” or better in ENC 0080 or (2) by a score of 83 or above on the FCPT. This course is strongly recommended for students scoring 83-91 on the FCPT.

LIN 1742
English Grammar and Style, 3 credit hours, 45 lec. (Offered as needed)
Principles and rules of traditional and modern English grammar and effective style.

LIS 1001
Library Skills, 1 credit hour, 30 lab. (Offered as needed)
A course creating learning situations in which individual students can become effective independent users of Learning Resources facilities. This course is recommended for all degree-seeking students in their first term.

LIS 2004
Introduction to Internet Research, 1 credit hour, 30 lab. (Offered as needed)
Introduction to Internet Research is a one-credit hour course offered by the Florida Public Community College system. This course is delivered via the World Wide Web and Internet e-mail. The course focuses on methods of accessing information resources available through the Internet. Students will learn to design search strategies, retrieve, evaluate, and cite Internet resources. The World Wide Web, e-mail, discussion groups, chat, FTP, Gopher, and Telnet are some of the topics covered. Prerequisite: A full service Internet account, including an electronic mail address from an Internet Service Provider (ISP), or access through a corporate or educational institution prior to beginning the course.

LIT 2090
Contemporary Literature, 3 credit hours, 45 lec. (Offered as needed)
Studies in modern drama, prose, and poetry, focusing on their comments on modern man. May be used as Humanities credit. Writing-Across-the-Curriculum course requiring a minimum of 4,000 words of writing. If used to meet AA Gordon Rule requirements for general education, a minimum grade of “C” is also required. Prerequisite: ENC 1101.

LIT 2100
World Literature, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Designed to encourage students to know and appreciate something of the great literature which helps to mold their thinking and everyday living. To include, without regard to national origin, those masterpieces of the Western World which reflect their cultural and intellectual heritage. May be used as a Humanities credit. Writing-Across-the-Curriculum course requiring a minimum of 4,000 words of writing. If used to meet AA Gordon Rule requirements for general education, a minimum grade of “C” is also required. Prerequisite: ENC 1101.

MAC 1105
College Algebra, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Function-based college algebra course which will include the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities; and applications of functions (curve fitting, modeling, optimization, exponential/logarithmic growth and decay). Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisites: MAT 1033A “Intermediate Algebra” or equivalent with a “C” or better or suitable placement score.

MAC 1114
Trigonometry, 3 credit hours, 45 lec. (Fall, Spring, Summer)
This is the second course in a pre-calculus sequence. A typical modern trigonometry course which includes the following topics; the six trigonometric functions and their inverses; identities; right triangles; applications; vectors; circular functions; graphs of trig functions and inverse trig functions; trigonometric equations; triangles; complex numbers; and polar graphs. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: MAC 1140 with a grade of “C” or better, or equivalent.

MAC 1140
Pre-Calculus Algebra, 3 credit hours, 45 lec. (Fall, Spring, Summer)
First course in a two-course pre-calculus sequence. Covers equations and inequalities; linear, quadratic, logarithmic and exponential functions and relations; systems of equations, matrices and determinants, mathematical proof techniques, including mathematical induction. Binomial theorem, sequences and series; and applications of algebraic techniques in the real world. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: Completion of MAC 1105 with a grade of “C” or better, or equivalent.

MAC 1147
Precalculus Algebra/Trigonometry, 4 credit hours, 60 lec. (Fall, Spring, Summer)
This course reviews algebra and trigonometry. Topics include polynomial, rational, exponential, logarithmic, and trigonometric functions, inverse functions, trigonometric identities and equations, solutions of triangles, vector algebra, topics from analytical geometry, sequences, series, mathematical induction and the binomial theorem. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: High School trigonometry with a “B” or better.

\* This college credit course qualifies as having an international and/or diversity focus for Teacher Education Programs common prerequisites.

\^ Technology-Across-the-Curriculum Course
MAC 1154
Analytic Geometry, 3 credit hours, 45 lec. (Offered as needed)
Typical modern analytic geometry course in two-and three-dimensional space. Prerequisite: Completion of MAC 1140 and MAC 1114 with a grade of “C” or better or equivalent.

MAC 2233
Calculus for Business, 3 credit hours, 45 lec. (Offered as needed)
A Calculus course covering limits, continuity, differentiation, and integration with emphasis on business applications. There is some mathematical theory; but, in general, topics are approached from an intuitive and applied point of view. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: Grade of “C” or better in MAC 1105 or equivalent.

MAC 2311
Calculus I, 4 credit hours, 60 lec. (Fall, Spring, Summer)
First course in a three-course sequence. Covers limits and continuity, rules of differentiation, the chain rule, derivatives of trigonometric functions, derivatives of logarithmic functions, derivatives of exponential functions, derivatives of inverse trigonometric functions, applications of derivatives to curve sketching, L'Hopital's Rule, indeterminate forms and maxima/minima problems, the mean value theorem, Rolle's theorem, the definite and indefinite integrals and the Fundamental Theorem of Integral Calculus, area, and applications of integrals. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: Completion of MAC 1114, or MAC 1147 with a grade of “C” or better, or equivalent.

MAC 2312
Calculus II, 4 credit hours, 60 lec. (Fall, Spring, Summer)
Second course in a three-course sequence. Techniques for finding areas, volumes, arc lengths and surface areas; methods of integration including integration by parts, trigonometric substitution, and partial fractions; indeterminate forms and L'Hopital's Rule; improper integrals, conic sections; graphing and area in polar coordinates; infinite sequences and series; tests for absolute and conditional convergence of series; power series. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: Completion of MAC 2311 with a grade of “C” or better or equivalent.

MAC 2313
Calculus III, 4 credit hours, 60 lec. (Fall, Spring, Summer)
Third course in a three-course sequence. Vectors and vector functions; dot product, cross product, curvature, and motion in space; quadric surfaces; functions of two or more variables, partial derivatives, gradients, directional derivatives, tangent lines and planes, and application of partial derivatives to maxima/minima; Lagrange multipliers, Taylor's formula; multiple integrals in rectangular, cylindrical, and spherical coordinates, and their applications; line integrals; Green's theorem, surface area, the divergence theorem and Stokes's theorem. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: Completion of MAC 2312 with a grade of “C” or better, or equivalent.

MAN 2021
Management, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Each function of management is analyzed and described in a systematic manner. Both the distilled experience of practical managers and the findings of scholars are presented. Other aspects of management are presented such as management process and concepts analysis of the technical knowledge and skills of managers, influences upon managerial decision-making process, and the psychological principles inherent in management.

MAN 2300
Personnel Management, 3 credit hours, 45 lec. (Fall, Spring, Summer)
An introduction to personnel practices and procedures. Topics include the personnel management system, maximizing employee potential, organizational behavior, and labor management relations.

MAP 2302
Differential Equations, 3 credit hours, 45 lec. (Fall, Spring)
An introduction to ordinary differential equations with an emphasis on first and second order linear equations and applications. Prerequisite: Either completion of MAC 2313 with a “C” or better or concurrent enrollment in MAC 2313. Equivalent courses from other institutions may be used to meet the prerequisite.

MAR 2011
Introduction to Marketing, 3 credit hours, 45 lec. (Fall, Spring, Summer)
An introductory course in the field of marketing including a look at marketing as it exists in our economy today. Consideration of the market, the product, distribution channels. Special emphasis on the study of human behavior in marketing promotion.

MAS 2103
Linear Algebra, 3 credit hours, 45 lec. (Offered as needed)
An introductory course in Linear Algebra intended to give students enough insight to enable successful pursuit of more abstract mathematics courses. Non-symbolic graphing calculators are required. The TI-83 Series is recommended. Prerequisite: MAC 2312 with a grade of “C” or better, or equivalent.
MAT 1033A
Intermediate Algebra, 4 credit hours, 60 lec. (Fall, Spring, Summer)
An intermediate algebra course to prepare students for general education mathematics/statistics courses. This course emphasizes concepts, techniques, and applications of the following major topics; factoring, algebraic functions, radicals and rational exponents, complex numbers, quadratic equations, rational equations, two-variable linear equations/inequalities and their graphs, systems of linear equations and inequalities, and an introduction to functions. Prerequisite: suitable placement score or completion of MAT 0024 (or equivalent) with a grade of “C” or better and a passing score on the college prep algebra exit exam.

MAT 1930*
Special Topics in Math, 2 credit hours, 30 lec. (Offered as needed)
A course developed to upgrade basic academic skills through intensive individualized instruction. The course is designed for incoming college students to enhance their successful completion of college degree programs.

MAT 2905
Independent Study – Mathematics, 1 credit hour, 30 lab. (Fall, Spring, Summer)
A course designed to allow a student to complete part of a course taken elsewhere and thereby complete general education requirements or to go deeper into special areas of interest. Prerequisite: Passing score on placement exam.

MCB 2010C
Microbiology, Allied Health, 4 credit hours, 45 lec., 30 lab. (Fall, Spring, Summer)
This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

MCB 2013C
Microbiology, 4 credit hours, 30 lec., 60 lab. (Offered as needed)
A general survey of microbiology, the cultivation and observation of microorganisms and their chemical and biological relationships to water, food, industrial processes and disease. Prerequisite: BOT 1010C or ZOO 1010C and CHM 1045C.

MET 1010
Introduction to Meteorology, 4 credit hours, 60 lec. (Fall, Spring)
Structure of the atmosphere, weather processes, systems and phenomena; climate and climatic change, economic impact of weather.

MGF 1106
Mathematics for Liberal Arts, 3 credit hours, 45 lec. (Fall, Spring, Summer)
This course is designed for those students requiring only general education mathematics courses. It includes systematic counting, probability, statistics, and history of mathematics, geometry, sets and logic. Prerequisite: Completion of MAT 1033/1033A or higher mathematics course with a grade of “C” or better, or equivalent or suitable placement score.

MGF 1107
Mathematics for Liberal Arts II, 3 credit hours, 45 lec. (Fall, Spring, Summer)
This course is designed for those students requiring only general education mathematics courses. Topics include numerical and mathematical systems, number theory, linear and exponential growth, history of mathematics, voting techniques, graph theory, and consumer mathematics. Prerequisites: MAT 1033/1033A or higher level math with a grade of “C” or better or appropriate placement score.

MGF 2118
Math Preparation for CLAST, 1 credit hour, 15 lec. (Fall, Spring, Summer)
A short course dealing with mathematical skills needed for successful completion of coursework in a variety of disciplines. Prerequisite: Completion of a general education mathematics course.

MKA 2021*
Professional Selling, 3 credit hours, 45 lec. (Offered as needed)
Selling, correct attitudes and personal attributes for dealing with the public on a business or professional basis.

MKA 2041*
Retail Management, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Retail store management, location, buying merchandise, control policies, services, pricing, expenses, profits: training and supervision of retail sales forces, administrative problems. Also includes a variety of current perspectives in retailing management.

MKA 2511*
Introduction to Advertising, 3 credit hours, 45 lec. (Fall, Spring, Summer)
Advertising as a marketing tool, its planning, creation, and use. A survey of copy writing, layout, and media (newspapers, magazines, radio, television, films, etc.)

MNA 1016*
ISO9000 – Industrial Management, 3 credit hours, 45 lec. (Offered as needed)
The course presents the functions of a manager, the views, techniques, and responsibilities of management. Included also are planning, forecasting, organizing, theory, staffing, and other related topics.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.
MNA 1161*  
Customer Service, 3 credit hours, 45 lec. (Fall, Spring, Summer)  
Designed to build and maintain the critical skills necessary to be a dynamic and successful professional. Students and front-line individuals who work with customers every day will develop strategies to create positive customer relationships. This course provides a practical approach to the thorny issues of customer dissatisfaction and will enable managers to keep service personnel focused on the organization's goals and objectives.

MNA 1345*  
Supervision I, 3 credit hours, 45 lec. (Fall, Spring, Summer)  
The course presents the functions of a personnel manager, philosophy of general management, organizational structure, employer socio-economic climate and career information. Included also are job descriptions and specifications, recruiting practices, applications, resumes, interviewing, placement, performance appraisals, wage and salary administration and other related topics.

MNA 1346*  
Supervision II, 3 credit hours, 45 lec. (Offered as needed)  
The course presents a continuing study of the functions of a personnel manager, philosophy of general management, employee socio-economic climate and other information. Included also are orientation, training, labor unions, safety, health and other related topics.

MNA 2100*  
Organizational Behavior, 3 credit hours, 45 lec. (Fall, Spring, Summer)  
Designed to help students develop an understanding of how they may be motivated to work together in greater harmony in all kinds of organizations. The basis of human motivation and how it is influenced by leadership, the organization itself, and the social environment in which the organization exists.

MNA 2141  
Leadership Techniques, 3 credit hours, 45 lec., (Offered as needed)  
This interdisciplinary course addresses leadership in a group setting and focuses on leadership development through discussion, readings, group and individual projects and other applied activities.

MNA 2141A  
Interdisciplinary Leadership Development, 3 credit hours, 45 lec., (Offered as needed)  
This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates readings from history, natural science and the humanities, experiential exercises, films, and contemporary readings on leadership and related topics.

MSL 1001  
Foundations of Officership, 1 credit hour, 15 lec., 15 lab. (Fall)  
This course examines the unique duties and responsibilities of officers, organization and role of the Army, reviews skills pertaining to fitness and communication, and analyzes Army values and expected ethical behavior. Requires participation in a weekly one-hour leadership laboratory.

MSL 1002  
Basic Leadership, 1 credit hour, 15 lec., 15 lab. (Spring)  
This course presents fundamental leadership concepts and doctrine, the practice of basic skills that underlie effective problem solving, and examines the officer experience. This course requires participation in a weekly one-hour leadership laboratory.

MSL 2101  
Individual Leadership Studies, 2 credit hours, 30 lec., 15 lab. (Fall)  
This course develops knowledge of self-confidence and individual leadership skills. It develops problem solving and critical thinking skills, as well as how to apply communication, feedback, and conflict resolution skills. This course requires participation in a weekly one-hour leadership laboratory.

MSL 2102  
Leadership and Teamwork, 2 credit hours, 30 lec., 15 lab. (Spring)  
This course focuses on self-development guided by knowledge of self and group processes, challenges current beliefs, knowledge, and skills. This course requires participation in a weekly one-hour leadership laboratory.

MTB 1103*  
Business Mathematics, 3 credit hours, 45 lec. (Fall, Spring, Summer)  
 Presents basic principles used to solve everyday business problems, including a review of basic skills and business terminology. Topics in the course include: base, rate and percentage; trade and cash discounts, wage and salary administration; insurance (fire and automobile); depreciation and business profits; distribution of corporate dividends; simple interest and bank discount and buying and selling of corporation bonds and stocks.

MTB 1321*  
Technical Math I, 3 credit hours, 45 lec. (Offered as needed)  
The course will include a basic arithmetic and algebraic operations, converting between scientific and engineering notations; solving linear equations and inequalities, converting units of measure, using linear equations to solve problems in science and technology applications, and solving geometry applications by geometry of triangle concepts. Prerequisite: MAT 0024 with a grade of “C” or better, or appropriate test scores.
MTB 1322†
Technical Math II, 3 credit hours, 45 lec. (Offered as needed)
This course will include solving linear and quadratic equations, solving systems of linear equations, solving trigonometric right triangle applications, graphing linear, quadratic, and trigonometric functions, computation of complex numbers, vectors, and phasors, conversion of rectangular and polar coordinates, and converting between binary and decimal systems. Prerequisite: MTB 1321 with a grade of “C” or better.

M.U.H 1001†
Humanities – Music, 3 credit hours, 45 lec. (Offered as needed)
Designed to develop a more intelligent understanding and appreciation of music. Brings about an awareness of music as a vital source in human life, including the advantageous utilization of leisure time and developing positive attitudes toward culture and the fine arts. Writing-Across-the-Curriculum course requiring a minimum of 4,000 words of writing. If used to meet AA Gordon Rule requirements for general education, a minimum grade of “C” is also required. Prerequisite: A passing score on the standardized placement test measuring communication/verbal achievement or successful completion of ENC 0080 and/or LIN 1670 with a grade of “C” or better.

M.U.H 2930
Music Humanities – Special Topics, 3 credit hours, 45 lec. (Fall, Spring, Summer)
A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

M.U.M 1620
Audio and Acoustic Fundamentals, 3 credit hours, 45 lec. (Offered as needed)
Audio & Acoustic Fundamentals explores the basics of audio systems and equipment and the acoustical environment in which they are used. Emphasis is placed on equipment terminology, function and acoustical listening. The two basic fundamentals are summed together to begin laying the basic foundation required to operate audio & recording equipment.

M.U.M 2300
Introduction to the Music Industry, 3 credit hours, 45 lec. (Fall, Spring, Summer)
This course is an introduction to the history, principles, and practices of the music industry. Topics will include music publishing, copyright, distribution, industry organization, producing, and general business functions. Prerequisite: MUM 1621.

M.U.M 2600
Recording Techniques I, 3 credit hours, 30 lecture, 30 lab. (Fall, Spring, Summer)
This course is designed as an introduction to basic audio engineering and studio practices. Listening exercises, psychoacoustics, microphone characteristics, and studio etiquette will be studied. In addition the student will study techniques and practices and procedures of multi-track recording, acoustical balancing, editing, and over dubbing in a variety of situations.

M.U.M 2600L
Recording Lab, 2 credit hour, 30 lab. (Fall, Summer, Spring)
This course is designed to provide students with “hands on” experience in conjunction with live performance activities. This course may be taken three (3) times for credit. Windows 98 or higher is required for students taking the online distance learning version of this course.

NOTE: This course is a corequisite for MUM 2601, however MUM 2601 is not a co-requisite for this course. This course may be taken alone. This course may also be taken in conjunction with MUM2604.

M.U.M 2601
Recording Techniques II, 3 credit hours, 30 lecture, 30 lab. (Fall, Spring, Summer)
This course explores advanced multi-track recording skills and audio production techniques, edits, use of outboard equipment and live multi-track recording. Prerequisite: MUM 2600; corequisite: MUM 2600L.

M.U.M 2604
Multi-Track Mixdown (Post Production), 3 credit hours, 30 lecture, 30 lab. (Fall, Spring, Summer)
This course explores the application of signal processing equipment as it relates to multi-track master mixdowns. In addition, software and hardware application of mixdown is applied to post-production practices. Prerequisite: MUM 2601.

M.U.M 1000
Summer Ensemble Workshop, 3 credit hours, 15 lec., 60 lab. (Summer)
An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop will be expected to participate in several scheduled performances. Prerequisite: experience in high school or a desire to learn.

M.U.M 1001
Summer Ensemble Workshop II, 3 credit hours, 15 lec., 60 lab. (Summer)
An ensemble workshop and performance to improve vocal and physical presentation skills. A variety of musical physical styles will be studied and performed. Students participating in Summer Ensemble Workshop II will be expected to participate in several scheduled performances. Prerequisite: MUM 1000.

† This college credit course is not intended for transfer and may not be applied toward the A.A. degree.
‡ Courses listed with this symbol contain an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.
MUN 1002
Summer Ensemble Workshop III, 3 credit hours, 15 lec., 60 lab. (Summer)
An ensemble workshop open to any student who desires to improve vocal and physical presentation skills. A variety of musical physical styles will be studied. Students participating in Summer Ensemble Workshop will be expected to participate in several scheduled performances. Prerequisite: MUN 1001.

MUN 1180
OWCC Band (Community), 1 credit hour, 30 lab. (Offered as needed)
A music organization providing an outlet and learning experience for both college students and wind or percussion players to read and perform standard band literature, transcriptions and program selections. Required of all wind or percussion music majors and minors. May be taken four times (4) for credit. Prerequisites: Ability to read music and play a band instrument. Audition by Director or 1 year experience in a high school advanced band.

MUN 1210
OWCC Symphony Orchestra I, 1 credit hour, 45 lab. (Fall, Spring)
A music organization providing an outlet and learning experience to study and perform standard orchestra literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Symphony occasionally performs with guest artists, choral groups and theatre ensembles. This course may be taken four (4) times for credit. Prerequisite: experience in symphony orchestra or symphonic band.

MUN 1310
OWCC Chorus I, 1 credit hour, 30 lab. (Offered as needed)
A music organization open through auditions to any student having experience in reading music. A variety of musical styles will be studied and performed. Students electing OWCC Chorus will be expected to participate in scheduled performances. MUN1310 may be taken four times for credit. Prerequisite: Experience in high school choruses or choirs.

MUN 1340A
OWCC Show Choir I, 1 credit hour, 45 lab. (Fall, Spring)
A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or full-time students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year. Prerequisite: Audition, consent of Department, music or performance minor. This course may be taken four (4) times for credit.

MUN 1360
Madrigal Singers I, 1 credit hour, 45 lab. (Offered Fall, Spring)
Course teaching madrigal styles to include a cappella, Renaissance madrigals (choral settings of love songs), as well as choral folk songs. May be repeated four times for credit. Prerequisites: audition based on vocal quality, musicianship and sight reading ability.

MUN 1390
Symphonic Chorus I, 1 credit hour, 45 lab. (Fall, Spring)
A music organization open through auditions to any student. The Symphonic chorus will study and perform literature for the large sized chorus. Prerequisite: Audition or permission of instructor. May be taken up to four (4) times for credit.

MUN 1421
Flute Ensemble, 1 credit hour, 30 contact, 30 lab. (Fall, Spring)
The study and performance of flute ensemble and flute choir music in a musical group. May be taken four (4) times for credit. Prerequisites: audition or instructor recommendation only.

MUN 1700
Jazz/Rock Laboratory, 1 credit hour, 30 lab. (Fall, Spring)
A performance ensemble designed to develop the creative artistry of the musician, without the limitations of a particular style. Under faculty supervision this course will focus on the performance of original compositions by the Jazz/rock Laboratory Ensemble. Instrumentation: all instruments and voice. May be taken four (4) times for credit. Prerequisite: Some experience in high school bands, etc. This course may be taken up to four (4) times for credit.

MUN 1710A
Rock and Jazz Ensembles I, 1 credit hour, 45 lab. (Offered as needed)
Music performing organization open to any student who wants to develop his or her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to designated organized ensemble. May be taken four times for credit. Prerequisite: Some experience in high school bands, etc. This course may be taken up to four (4) times for credit.

MUN 1711
Jazz Workshop, 1 credit hour, 30 lab. (Offered as needed)
The study and performance of jazz music in the context of the small ensemble. This will be accomplished through the performance of both stock arrangements and student arrangements. Instrumentation: 5 wind, 4 rhythm, voice. This course may be taken up to four (4) times for credit. Prerequisite: Strong music performance background with basic knowledge of the jazz idiom.

MUN 1720A
Rock and Jazz Ensembles II, 1 credit hour, 45 lab. (Fall, Spring)
Music performing organization open to any student who wants to develop his/her performance repertoire. Laboratory studies include techniques of performing music, literature, practices, styles and media applicable to designated organized ensemble. Prerequisite: Some experience in high school bands, etc. This course may be taken up to four (4) times for credit.
MUN 2120
OWCC Band Community II, 1 credit hour, 45 lab.
(Offered as needed)
A music organization providing an outlet and learning experience for both college students and wind or percussion players to read and perform standard band literature, transcriptions and program selections. Required of all wind or percussion music majors and minors. May be taken four times for credit. Prerequisite: MUN 1180.

MUN 2211
OWCC Symphony Orchestra II, 1 credit hour, 45 lab.
(Fall, Spring)
A music organization providing an outlet and learning experience to study and perform standard orchestra literature, to improve individual instrumental skills, and to sharpen ensemble techniques. The Symphony occasionally performs with guest artists, choral groups and theatre ensembles. This course may be taken four (4) times for credit.

MUN 2361
Madrigal Singers II, 1 credit hour, 45 lab. (Fall, Spring)
Madrigal Singers is an advanced choral ensemble composed of approximately 12 to 14 singers. Maybe taken 4 times for credit. Prerequisite: MUN 1360.

MUN 2371
OWCC Show Choir II, 1 credit hour, 45 lab. (Fall, Spring)
A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership is open to all part-time or fulltime students on a credit or audit basis. All music majors and performance majors must participate. The show choir appears in public performances at frequent intervals throughout the year. Prerequisite: MUN 1340A, Show Choir I. This course may be taken four (4) times for credit.

MUN 2392
Symphonic Chorus II, 1 credit hour, 45 lab. (Fall, Spring)
A music organization open through auditions to any student. The Symphonic Chorus will study and perform literature for the large sized chorus. This course may be taken up to four (4) times for credit. Prerequisite: MUN 1390.

MUS 1905
Independent Study – Music, 1 credit hour (Offered as needed)
A defined independent study which is pursued under supervision of a faculty directing teacher and recorded through departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized or advanced nature and not available through classes or courses available on a college schedule. Departmental approval required. Placement test may be required.

NOTE: If this course is used to satisfy Writing-Across-the-Curriculum requirements for transfer courses to OWCC, a 4,000 word paper with a minimum grade of “C” is required. This course may be taken up to four (4) times for credit.

MUS 2930
Music – Special Topics, 3 credit hours, 45 lec. (Fall, Spring Summer)
A defined special topics course which is pursued under supervision of a faculty member and recorded through usual departmental procedures. Designed to permit a student to pursue non-scheduled academic and laboratory work which may be of a specialized nature and not available through the college schedule.

MUT 1001
Fundamentals of Music, 3 credit hours, 45 lec. (Fall, Spring)
A pre-theory course for the nonmusic major, or for the elementary education major. Included are the studies of reading clefs, rhythm, notation, scales, and doing simple keyboard and sight-singing exercises. The emphasis is on developing music reading skills.

MUT 1121
Music Theory I/Ear Training and Sight Singing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A study of the fundamentals of basic musicianship, music notation, understanding of simple rhythms, key situations, intervals, ear training, dictation, sightsinging, major and minor scales, intervals, triads, chords, polyphonic composition and elementary keyboard work. Prerequisite: MUT 1001 or instructor permission.

MUT 1122
Music Theory II/Ear Training and Sight Singing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A continuation of MUT 1121. Basic musicianship, writing and reading of music, ear training, dictation, sightsinging will be studied, as well as major and minor scales, intervals, triads, seventh chords, inversions, cadences, periods and progressions in all keys. Two, three and four part chords and polyphonic composition. Prerequisite: MUT 1121.

MUT 1641
Jazz Improvisation I, 2 credit hours, 15 lec., 30 lab. (Fall, Spring)
A course designed to introduce the student to the concepts of Jazz Improvisation. Through active participation the student will develop the basic skills necessary to become a competent jazz soloist. This course may be taken two (2) times for credit. Prerequisite: MUT 1121.
MUT 2126
Music Theory III/Ear Training and Sight Singing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A continuation of MUT 1121 and MUT 1122. The harmonization and modulation of melodies through the use of nondominant harmony and the study of sequence writing. Incorporates keyboard harmony plus sight reading of chromatic melodies, large intervals, and advanced rhythms. Prerequisite: MUT 1122.

MUT 2127
Music Theory IV/Ear Training and Sight Singing, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
The continued study of harmonization of melodies, sequence writing, sight reading, intervals, advanced rhythms and structures. Prerequisites: MUT 2126.

MUT 2351
Introduction to Jazz Theory/Arranging, 3 credit hours, 45 lec. (Offered as needed)
A lecture-demonstration-workshop, approach to jazz/pop arranging open to any student who wants to begin or understand composing/arranging. Studies include jazz/pop harmonies, arranging fundamentals and techniques, and the use of jazz/pop instrumentation. Workshop practices include assigned arrangements with the arrangements played by the jazz ensemble, and other audio demonstrations. Prerequisite: MUT 1122.

MUT 2642
Jazz Improvisation II, 2 credit hours, 45 lec., 30 lab. (Fall, Spring)
A continuation of MUT 1641 Jazz Improvisation I. This course is designed to further develop the skills needed to become a competent soloist in the jazz idiom. This course may be taken two (2) times for credit. Prerequisite: MUT 1641.

MVB 1201
Applied Music Secondary – Brass I, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction: 1/2 hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors. Course may be taken four (4) times for credit.

MVB 1202
Applied Music Secondary – Brass II, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction: 1/2 hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors. Course may be taken four (4) times for credit. Prerequisite: MVB 1201.

MVK 1211
Applied Music – Piano I, 1 credit hour, 7.5 lab. (Fall, Spring, Summer)
Private instruction in piano, as secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required. Course may be taken four (4) times for credit.

MVK 2221
Applied Music – Piano II, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction in piano, as a secondary instrument, consisting of one half-hour lesson per week. Minimum of one hour daily practice is required. Course may be taken four (4) times for credit. Prerequisite: MVK 1211.

MVP 1201
Applied Music Secondary – Percussion I, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction in percussion instruments to develop the student’s performance ability in an applied area. One half-hour private lesson per week. Minimum of one hour daily practice. Minimum of one hour daily practice is required. Course may be taken four (4) times for credit.

MVP 2202
Applied Music Secondary – Percussion II, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction in percussion instruments to develop the student’s performance ability in an applied area. One half-hour private lesson per week. Minimum of one hour daily practice. Course may be repeated four (4) times for credit. Prerequisite: MVP 1201.

MVS 1016
Applied Strings – Guitar I, 1 credit hour, 7.5 lab. (Fall, Spring, Summer)
Private instruction on guitar. Designed to equip the student for continuing study leading progressively to greater proficiency. May be taken four times for credit.

MVS 1017
Applied Strings – Bass Guitar I, 1 credit hour, 7.5 lab. (Fall, Spring, Summer)
Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency. May be taken four times for credit.

MVS 1111
Class Guitar, 1 credit hour, 15 lec. (Fall)
The study of basic techniques for the beginning and continuing student.

MVS 1201
Applied Music Secondary – Strings I, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For nonmusic majors and music majors. Course may be taken four (4) times for credit.

MVS 2026
Applied Strings – Guitar II, 1 credit hour, 7.5 lab. (Fall, Spring, Summer)
Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency. May be taken four times for credit. Prerequisite: MVS 1016.

MVS 2027
Applied Strings – Bass Guitar II, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction in guitar. Designed to equip the student for continuing study leading progressively to greater proficiency. May be taken four times for credit. Prerequisite: MVS 1017.
MVS 2202
Applied Music Secondary – Strings II, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors. Course may be taken four (4) times for credit. Prerequisite: MVS 1201.

MVV 1211
Applied Music – Voice I, 1 credit hour, 7.5 lab. (Fall, Spring, Summer)
Private instruction in voice, as a secondary instrument, consisting of one half-hour session per week, with a minimum of one hour daily practice. Course may be taken four times for credit.

MVV 2221
Applied Music – Voice II, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction in voice, as a secondary instrument, consisting of one half-hour lesson per week, with a minimum of one hour daily practice. Course may be taken four (4) times for credit.

MVW 1201
Applied Music Secondary – Woodwinds I, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors. Course may be taken four (4) times for credit.

MVW 2202
Applied Music Secondary – Woodwinds II, 1 credit hour, 7.5 lab. (Offered as needed)
Private instruction: one half-hour private lesson per week. Minimum one hour daily practice. For non-music majors and music majors. Course may be taken four (4) times for credit. Prerequisite: MVW 1201.

NUR 1021
Nursing Process I, 6 credit hours, 90 lec. (Fall)
This course introduces concepts and principles of holistic nursing care. Students will build on knowledge obtained in the biophysical and psychosocial sciences in the first of four required clinical nursing courses in the nursing curriculum. Theory content includes an introduction to the healthcare system; ethical-legal aspects of nursing practice; health and illness; functional health patterns of clients; stress-adaptation; professional behaviors (e.g., caring behaviors); communications and all steps of the nursing process with focus on assessment skills. Critical thinking is an expected behavior along with skills in working effectively with peers and other health care professionals as a team member; demonstrate caring behaviors and therapeutic communication with clients as a provider of bedside, technical nursing care. The student is expected to demonstrate safe performance of basic nursing skills, e.g., medication administration, physical assessment and comfort care. Prerequisite: Admission to the Nursing Program or permission of the Director of Nursing. Co-require: NUR 1021. Special Nursing Program policies may apply to this course.

NUR 1235
Nursing Process II, 5 credit hours, 75 lec. (Spring)
The nursing process continues with emphasis on the planning of nursing care for adult clients experiencing threats to functional health patterns, including women and infants within a significant support system (e.g., families). Basic concepts and principles of holistic nursing are built upon with interpersonal relationships focusing on the new parent, grandparents and elderly clients. Practice issues focus on legal-ethical cases related to maternal-child and family care. Professional behaviors, (e.g., therapeutic relationships) continue with students working with the elderly client through the life review process and with clients in crises. Students further develop critical thinking skills through seminars planned to provide students with problem-solving skills in analyzing, planning & prioritizing care for clients whose health problems are more acute or chronic; the client with psycho-emotional dysfunctions, dysfunctional support systems situations, grief & loss. Students learn basic management skills as a team member in caring for a limited number of clients in hospitals with emphasis on coordination of nursing care and discharge planning. Conflict management skills are highlighted as the student increases role as client advocate. Prerequisites: Admission to the Nursing Program or permission of the Director of Nursing, NUR 1021, NUR 1021L, BSC 1085C or BSC 1086C. Co-requisites: NUR 1750L, NUR 1141C, MCB 2010C, SYG 2000, BSC 1086C. Special Nursing Program policies may apply to this course.

NUR 1750L
Nursing Process II Clinical Experience, 4 credit hours, 180 clin. (Spring)
Continuation of the role of the associate degree nurse in providing direct, holistic nursing care for adult clients during the childbearing process and/or experiencing dysfunctional health patterns. Clinical experiences in hospitals, clinics, long term facilities and community settings provide students with opportunities to plan, prioritize and begin to evaluate the effectiveness of bedside nursing care of adult perioperative clients, elderly clients who benefit from a life review process, newborns and other clients experiencing situational and/or maturational crises. Students continue to develop management skills through conflict management and other professional behaviors. Students demonstrate safe performance of all basic and more complex nursing skills. Prerequisites: Admission to the Nursing Program or permission of the Director of Nursing, NUR 1021, NUR 1021L, BSC 1085C or BSC 1086C. Co-requisites: NUR 1235, NUR 1141C, MCB 2010C, SYG 2000, BSC 1086C. Special Nursing Program policies may apply to this course.
NUR 1141C
Pharmacologic Principles in Nursing, 1 credit hour, 15 lec. (Spring)
This course provides an introduction to concepts and principles of pharmacology related to safe administration of therapeutic agents by the nurse. Students learn major drug classifications and selected prototypes along with principles of safe, effective administration of drugs and other therapeutic agents. By the end of the course, students must apply computation skills to demonstrate administration of drugs without error in order to successfully pass the course and progress in the nursing program. Prerequisites: Admission to the Nursing Program or permission of the Director of Nursing, NUR 1021, BSC 1085C, BSC 1086C, DEP 2004. Co-requisites: NUR 1235, NUR 1750L; MCB 2010C, SYG 2000. Special Nursing Program policies may apply to this course.

NUR 1320
Orientation to AD Nursing, 4 credit hours, 60 lec. (Summer)
This course is designed for LPNs and other special students an opportunity for advanced placement in the nursing program via reviewing and validating prior learning. Course content includes review of functional health patterns of the childbearing adult, selected topics related to acute care of hospitalized adults, the geriatric client and the newborn; the nursing process, holistic care planning and pharmacologic principles of nursing. Critical thinking is stressed as students transition into the associate degree nursing student role. Prerequisites: Admission to the Nursing Program or permission of the Director of Nursing, BSC 1085C, BSC 1086C, HUN 2201, SYG 2000, ENC 1101, DEP 2004 and LPN Licensure or equivalent education. Co-requisites: MCB 2010C, NUR 1320L. Special Nursing Program policies may apply to this course.

NUR 1320L
Orientation to AD Nursing Clinical Experience, 3 credit hours, 90 clin. (Summer)
This course is designed for LPNs and other special students an opportunity for advanced placement in the nursing program via reviewing and validating prior learning. Students will learn physical assessment skills, holistic care planning and demonstrate nursing skills at the bedside of clients in acute care settings, i.e., the perioperative client, the obstetrical client and newborn. Critical thinking is stressed as students transition into the associate degree nursing student role. Successful completion of this course will allow the student to progress to the second year of the nursing program. Prerequisites: Admission to the Nursing Program or permission of the Director of Nursing, BSC 1085C, HUN 2201, SYG 2000, ENC 1101, DEP 2004 and LPN Licensure or equivalent education. Co-requisites: MCB 2010C, NUR 1320L. Special Nursing Program policies may apply to this course.

NUR 1940L
Nursing Clinical Externship, 3 credit hours., 126 clin. (Summer)
This elective course is designed to offer students the opportunity to gain additional clinical skills practice between the first and second year of the program. Working with a preceptor and the nursing faculty, the student will be able to perform all skills learned in the first two nursing courses in area hospitals, clinics or nursing homes as arranged by the instructor. Prerequisites: Admission to the Nursing Program or permission of the Director of Nursing, NUR 1235/NUR 1750L; NUR 1141C. Special Nursing Program policies may apply to this course.

NUR 2166
Nursing Process III, 6 credit hours, 90 Lec. (Offered Fall)
Students continue to use the nursing process and critical thinking with emphasis on primary and secondary prevention as nursing interventions in clients experiencing threats to functional health patterns, including adults and children whose normal lines of defense have been invaded by stressors to the degree that hospitalization is necessary. Nursing practice issues continue to focus on ethical-legal issues related to acute and/or chronic illness and disability. Management skills include delegation and career development. Prerequisites: NUR 1235, NUR 2811L. Co-requisite: NUR 2236L. Special Nursing Program policies may apply to this course.

NUR 2236L
Nursing Process III Clinical Experience, 4 credit hours, 180 lab. (Offered Fall)
Students continue to apply knowledge and skills learned in previous nursing courses in providing nursing care for hospitalized adults and children whose health problems are more complex and/or chronic. Clinical sites include health departments, clinics, physician offices, schools and other community settings. Students adapt therapeutic skills to meet the needs of clients experiencing psycho-emotional dysfunction to the extent that they may be hospitalized. Students apply conflict resolution skills as needed to meet client and/or peer learning goals; they also begin to practice delegation skills with their peers. Students demonstrate continuation of all previously learned nursing skills and must perform safely all advanced nursing skills in this course. Prerequisites: NUR 1235, NUR 1751L, BSC 2010C Co-requisite: NUR 2236. Special Nursing Program policies may apply to this course.

NUR 2241
Nursing Process IV, 5 credit hours, 75 lec. (Offered Spring)
Students integrate knowledge and principles of the biophysical and psychosocial sciences to solve life-threatening problems that affect a limited number of critically ill clients in a variety of clinical settings. Students differentiate holistic nursing care therapies in primary, secondary and tertiary care settings. Students become proficient in applying all steps in the nursing process with emphasis on evaluating nursing care outcomes. Students apply critical thinking skills in exploring case-based practice situation and work together in learning seminars to select effective client care improvement processes. Self-evaluation is part of the socialization process to prepare students for the work world as competent, caring staff nurses. Nursing practice issues include licensure standards and continued professional development. Prerequisites: NUR 2236L, Co-requisites: NUR 2241L. Special Nursing Program policies may apply to this course.
NUR 2241L
Nursing Process IV Clinical Experience, 4 credit hours, 132 lab. (Offered Spring)
Students apply knowledge and principles of the biophysical and psychosocial sciences to assess, plan, implement and evaluate holistic nursing care of critically ill adults in hospitals, nursing homes, ambulatory care settings, and the home. Students will expand on management of care skills in preparation for their 4-week clinical practicum prior to graduation from the program. Students will shadow a home health/hospice nurse in observing treatment and palliative care of adults and children. Students must demonstrate competency in all behaviors required for an associate degree graduate. Prerequisites: NUR 2236. Corequisite: NUR 2241. Special Nursing Program policies may apply to this course.

NUR 2811L
Nursing Practicum, 3 credit hours, 144 lab. (Offered Spring)
This provides a time during the latter part of the last semester of the nursing program in which students begin to transition from the student role into the graduate role as associate degree nurses. Students work with an experienced registered nurse preceptor to provide holistic nursing care for a limited number of clients with potentially life threatening health problems. Clinical experiences may take place in a variety of clinical settings and work schedules. Students develop team-leading skills in the clinical setting, delegating and evaluating aspects of care to other health team members. Focus is on demonstration of all professional behaviors and competencies expected of the associate degree registered nurse graduate at entry staff nurse level. Prerequisite: NUR 2241L. Special Nursing Program policies may apply to this course.

NUR 2291L
Nursing Practice Readiness, 1 credit hour, 30 lab. (Offered Spring)
This elective laboratory course assists the nursing student to prepare for the RN licensure examination. Web-based instructional methodologies allow the student to complete the course within a self-paced time frame. Students practice test taking skills, self-evaluation and other strategies to gain confidence in sitting for the NCLEX-RN. Prerequisites: NUR 2241 or permission from nursing program director. Special Nursing Program policies may apply to this course.

NUR 2931L
Special Topics in Associate Degree Nursing Laboratory, 4 credit hours, 120 lab. (Offered as needed)
Students work individually to apply concepts, principles and standards of nursing practice pertaining to client core needs in the acute, ambulatory or long-term care setting. Simulations, CAI and other laboratory activities within a flexible schedule assist students to meet individual learning goals. Prerequisite: Admission to the program; permission of program director. Corequisite: NUR 2293.

OCE 1005C
Introduction to Oceanography, 4 credit hours, 45 lec., 30 lab. (Fall, Spring)
A survey of the physics, chemistry, geology and biology of the oceans. Interrelationships between the atmosphere and oceans, methods of measurement and research, processes of coastal change and marine conservation. May be used to satisfy A.A. requirements in physical science for career goals other than the sciences, engineering, and pre-professional health care.

ORI 2000
Oral Interpretation, 3 credit hours, 45 lec. (Offered as needed)
Oral interpretation of all genres of literature. Students read and research appropriate literature to cut, adapt, and present to the class as solo, duet, and group interpretations.

OST 1107Δ
Typing and Word Processing I, 3 credit hours, 45 lec. (Fall, Spring)
Integration of basic keyboarding and word processing – learning the keyboard, creating, editing, saving, and other word processing functions.

OST 1131*Δ
Legal Word Processing, 3 credit hours, 75 lab. (Offered as needed)
Thorough analysis and formatting of legal documents.

OST 1355*
Records Management, 3 credit hours, 45 lec., (Fall, Spring, Summer)
Methods and systems of filing used in business offices, filing equipment, and time-and-motion skills. Filing practice sets are used.

OST 2117Δ
Typing and Word Processing II, 3 credit hours, 45 lec. (Spring)
Continuation of Typing and Word Processing I – develop keyboarding and document processing using a microcomputer. Prerequisite: OST 1107 or equivalent.

OST 2127*Δ
Typing and Word Processing III, 3 credit hours, 45 lec. (Offered as needed)
Development of occupational proficiency in business letter writing, legal papers, executive forms and papers, and manuscripts through the use of a word processor. Prerequisite: OST 2117 or equivalent.

* This college credit course is not intended for transfer and may not be applied toward the A.A. degree.
Δ Technology-Across-the Curriculum Course