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. Prerequisite: Completion of English Composition I 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.

ENC 1105
CLAST Review: English Language Skills, 1 credit hour, 15 lec. (Offered as needed)
A short course specifically designed to prepare students to take or retake the CLAST English Language Skills subtest.

ENC 1930
Special Topics in English, 2 credit hours, 30 lec. (Offered as needed)
Through an intensive individualized instructional program, this course will upgrade basic academic skills of incoming students to promote their successful completion of college degree programs.

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.

ENC 2313
Expository Writing, 3 credit hours, 45 lec. (Offered as needed)
Review of fundamental principles of grammar and usage with guided practice in writing expository essays of a kind and quality expected in upper-level college work. Offers an alternative to the Test of Standard Written English as a means of satisfying the UWF Writing Skills Requirement. Prerequisite: ENC 1101 and ENC 1102.

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 requirements for transfer courses to OWCC, a minimum grade of “C” is required. This course may be taken up to four (4) times for credit.

ENL 2000
English Literature I, 3 credit hours, 45 lec. (Offered as needed)
A study of English literature from the Old English period, Beowulf, through the late Eighteenth century, the Age of Enlightenment, focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit.

ENL 2022
English Literature II, 3 credit hours, 45 lec. (Offered as needed)
A study of English literature from the Romantics through the Twentieth century focusing on major works and their authors with an emphasis upon the literature as a significant reflection of and contribution to the political, cultural, social, religious, and economic milieu of each age. This course may be used as a Humanities credit.

ESL 0181
ESL Structure and Writing: Level II, 3 credit hours, 75 lec. (Offered as needed)
This course will present English grammar in a meaningful sequence and will develop the writing skills of those students for whom English is not the native tongue. It is designed to prepare these students for entry into college level English courses by improving their control of standard English.

ETD 1100*
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.

* Occupational course that may not be applied toward the A.A. Degree.
ETD 1111*
Drafting I, 6 credit hours, 15 lec., 150 lab. (Offered as needed)
The first of a sequence of courses in drafting which includes basic use of instruments, freehand lettering, geometric construction, orthographic projection, sections and conventions, conventional revolutions, dimensioning, inking, mechanical lettering, and methods of reproduction. Prerequisite: ETD 1100 and ETD 1710 or equivalent.

ETD 1221*
Drafting II, 6 credit hours, 15 lec., 150 lab. (Offered as needed)
A course that continues and completes the student’s study of the fundamentals intrinsic to all types of drafting. Topics covered include isometric, dimetric, trimetric, oblique, and perspective projection, auxiliary views, related mathematics, precision dimensioning and inking practices. Prerequisite: ETD 1111 or equivalent.

ETD 1310*
Intro. Computer Drafting, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course designed to help drafting students develop knowledge and skills in the area of computer aided drafting. The course will include general background information on computer drafting theory as well as presentations on state-of-the-art computer drafting hardware. Prerequisite: ETD 1100 or EGS 1110C or equivalent, and CET 1251 or CGS 1060.

ETD 1311*
Computer/Systems Drafting, 3 credit hours, 30 lec., 30 lab. (Offered as needed)
A course designed to help students develop knowledge and skills in the areas of computer aided drafting and systems drafting. Topics covered include: computer aided drafting terminology; computer drafting hardware, software, and users; computer drafting applications; scissors drafting; reprographics; pin-registered overlay drafting; and team drafting. Prerequisite: ETD 1310 or equivalent.

ETD 1320*
Introduction to 3 Dimensional Modeling, 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 1311 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 1653 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, multilayer boards, art-masters, fabrication drawings, and silkscreen masters. Prerequisite: ETD 1310 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 1311, and ETD 2218 or equivalent.

ETD 1710*
Basic Machine Drafting, 3 credit hours, 45 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 1801*
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 1311 and ETD 1320.

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.

* Occupational course that may not be applied toward the A.A. Degree.
ETD 2218*  
**Geometric Dimensioning & Tolerancing, 3 credit hours, 30 lec., 30 lab. (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. Prerequisite: ETD 1710 or equivalent.

ETD 2219*  
**Advanced Geometric Dimensioning & Tolerancing, 3 credit hours, 30 lec., 30 lab. (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 2281C*  
**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. Prerequisites: ETD 1100 and CET 1251 or ETO 1710 or equivalent.

ETD 2351*  
**Advanced Computer/System Drafting, 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 2355*  
**3D Modeling, 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 1320 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 2281C or equivalent.

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, 15 lec., 60 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 2219, or equivalent.

ETD 2801*  
**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 1801 or equivalent.

* Occupational course that may not be applied toward the A.A. Degree.
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. Prerequisite: EGS 1110C or equivalent. 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 1033 or equivalent.

ETG 1941*  
Internship I – Technical Education, 3 credit hours, 225 lab hours (Offered as needed)
On-the-job training in the Associate of Science Degree or Associate of Science/Applied Science Option 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 Associate of Science Degree or Associate of Science/Applied Science Option 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.

ETG 1943*  
Internship III – Technical Education, 3 credit hours, 225 lab hours (Offered as needed)
On-the-job training in the Associate of Science Degree or Associate of Science/Applied Science Option 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 1942.

ETG 1944*  
Internship IV – Technical Education, 3 credit hours, 225 lab hours (Offered as needed)
On-the-job training in the Associate of Science Degree or Associate of Science/Applied Science Option 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.

ETG 2905*  
Independent Study – Electronics, 1 credit hour (Fall, Spring, Summer)
Directed study and individual projects designed to meet the needs of students interested in a specialized area of electronics for which present course availability is limited. This course may be taken up to four (4) times for credit.

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.

* Occupational course that may not be applied toward the A.A. Degree.
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 student’s 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)
An introductory course which examines the principles and practices of Total Quality Management (TQM) in our changing society. Focuses on the concepts of quality, customer satisfaction, continuous improvement, leadership, and teamwork in all aspects of American enterprise. Emphasizes planning and the integration of people and processes into a leadership dynamic of change to a total quality culture.

ETI 2114*
Benchmarking, 3 credit hours, 45 lec. (Offered as needed)
A course covering the fundamentals of benchmarking. Major topics include: rationale for benchmarking, management’s role in benchmarking, obstacles to benchmarking, selection of processes to benchmarking, and acting on benchmarking data.

ETI 2115*
Just-in-Time Manufacturing, 3 credit hours, 45 lec. (Offered as needed)
A course covering the fundamentals of JIT. Major topics include: rationale for JIT, development of the concept, benefits of JIT, requirements of JIT, and automation of JIT.

ETI 2116*
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 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 2906*
Tutorial-Industrial-Technical, 1 credit hour (Offered as needed)
A program which awards credit recognition to outstanding students who volunteer to assist or tutor other students having remedial and specific academic or laboratory needs in a designated subject. Student tutors are recommended by faculty teaching a designated course and are supervised through the Counseling Office.

ETI 2940*
Directed Work Study-Industrial-Technical, 1 credit hour, 45 lab. (Fall, Spring, Summer)
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.

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 1120
French I, 4 credit hours, 60 lec. (Offered as needed)
Pronunciation 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. Students who have successfully completed two or three years of high school French should enroll in French III-IV.

* Occupational course that may not be applied toward the A.A. Degree.
FRE 1121
French II, 4 credit hours, 60 lec. (Fall)
- Pronunciation 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. Students who have successfully completed three years of high school French should enroll in French III-IV.

FRE 2200
French III, 4 credit hours, 60 lec. (Offered as needed)
- Intermediate level review of grammar, readings in French literature, and development of conversational and writing skills.
- Prerequisite: Two or three years of high school French with grade of “B” or better, or FRE 1120 and 1121 or its equivalent.

FRW 2100
Introduction to French Literature I, 3 credit hours, 45 lec. (Offered as needed)
- The development of French literature from the middle ages to the end of the 18th century.
- Prerequisite: FRE 2201 or its equivalent.

FRW 2101
Introduction to French Literature II, 3 credit hours, 45 lec. (Offered as needed)
- The development of French literature from the beginning of the 19th century to the present.
- Prerequisite: FRE 2201 or its equivalent.

FSS 1292
Using Energy Saving Appliances in Cooking, 1 credit hour, 15 lec., 5 lab. (Offered as needed)
- The basic operation of the energy saving appliances and use in cooking techniques for various foods.

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 or human geography as it applies to the differing regions of the world. It will show the relationship between the following: (1) regional environment and the peoples who live there and (2) settlement patterns, economic and cultural patterns within each region. Using current events, the course will show the impact of other phenomena upon those regions and their peoples.

GEB 1940*
Internship-Business Education, 3 credit hours, 225 lab. (Offered as needed)
- 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 2441
Business Ethics, 3 credit hours, 45 lec. (Offered as needed)
- 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.

GEB 2903*
Tutorial-Business, 1 credit hour, 30 hours (Fall, Spring, Summer)
- An experience in individual depth study in which one student prepares for and engages in tutoring another for two class periods per week.

GER 1120
German I, 4 credit hours, 60 lec. (Offered as needed)
- Functional development of understanding of spoken and written German, with emphasis upon balanced development of all four skills — listening, speaking, reading, and writing.
- The German I and II sequence covers all basic structures of the language. Students who have successfully completed two or three years of high school German should enroll in German III-IV.

GER 1121
German II, 4 credit hours, 60 lec. (Offered as needed)
- Functional development of understanding of spoken and written German, with emphasis upon balanced development of all four skills — listening, speaking, reading, and writing.
- Covers all basic structures of the language. Students who have successfully completed two or three years of high school German should enroll in German III-IV.
- Prerequisite: GER 1120 or equivalent.

* Occupational course that may not be applied toward the A.A. Degree.
GER 2200  
German III, 4 credit hours, 60 lec. (Offered as needed)  
Intermediate level review of grammar, readings in contemporary literature and current affairs, audio-lingual practice, and development of conversational and writing skills. Prerequisite: GER 1120, GER 1121 or two years or more in high school German with a grade of "B" or better, or equivalent.

GER 2201  
German IV, 4 credit hours, 60 lec. (Offered as needed)  
Completion of intermediate level review of grammar, readings in contemporary literature and current affairs, audio-lingual practice, and development of conversational and writing skills. Prerequisite: three years of high school German with grade of "B" or better, or GER 2200 or its equivalent.

GER 2420  
Advanced German Grammar and Composition I, 3 credit hours, 45 lec. (Offered as needed)  
Study of advanced grammatical structures, selected development of vocabulary and idiom, practice in oral and written composition. Prerequisite: GER 2201 or four years of high school German.

GER 2421  
Advanced German Grammar and Composition II, 3 credit hours, 45 lec. (Offered as needed)  
Study of advanced grammatical structures, selected development of vocabulary and idiom, practice in oral and written composition. Prerequisite: GER 2201 or four years of high school German.

GER 2905  
Independent Study-German, 1 credit hour (Offered as needed)  
Directed study designed to meet needs of students interested in specific areas of German language and literature for which the present course offerings are limited. This course may be taken up to four (4) times for credit.

GEW 2011  
Introduction to German Literature II, 3 credit hours, 45 lec. (Offered as needed)  
A survey of representative literary works from 1833 to the present, grouped by periods and literary movements.

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. Pre- or corequisite: GLY 1001 or equivalent.

GLY 1010C  
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.

GLY 1100C  
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. Prerequisite: GLY 1001 or equivalent (a physical geology course).

GRA 1820C  
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 produce flyers, ads, certificates, business cards, and other printed material.

GRA 1821C  
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.
GRA 1822C  
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. Prerequisite: GRA1821C

GRA 2547C  
Projects in Graphic Design, 3 credit hours, 30 lec., 30 lab.  
(Offered as needed)

An advanced graphic design course in which the student will work under the direction of an instructor to produce a large, multi-faceted design project of the student’s own design. Prerequisites: GRA 2602C and ART 2602C, or ART 2602C and ART 2610C.

GRA 2600C  
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 1821C and GRA 2800C

GRA 2800C  
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 to create and generate color graphics to produce illustrations and charts on a Macintosh desktop publishing system. Corequisite: GRA 1820C.

GRA 2801C  
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 2800C and GRA 1821C.

GRA 2802C  
Computer Graphics III, 4 credit hours, 30 lec., 60 lab.  
(Offered as needed)

This is an advanced Computer Graphics class that uses a 3-D landscape program called Bryce. Objects are manipulated in wire-frame mode using the X, Y, Z coordinates and then rendered for the final scene. Prerequisites: GRA 1921C and GRA 2800C.

GRA 2805C  
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. Prerequisites: GRA 1821C and GRA 2800C.

GRA 2841C*  
Web Publishing I, 4 credit hours, 30 lec., 60 lab.  
(Offered as needed)

Contact the department regarding description and prerequisites for this new course.

GRA 2905  
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  
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.

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.

* Occupational course that may not be applied toward the A.A. Degree.