

LOWER DIVISION COLLEGE CREDIT COURSE DESCRIPTIONS

ACG 2001 Δ

Accounting I, 3 credit hours, 45 lec. (Fall, Spring, Summer)

Accounting information system; double entry system, income and adjustments; accounting cycle completion; merchandise and special journals; internal control and voucher system; short-term liquid assets; inventory methods; liabilities and payroll; acquire, depreciate, and dispose of assets; capital or expenditures; asset depletion and amortization; code of professional ethics. Prerequisites: although not required, MTB 1103 is highly recommended.

ACG 2011

Accounting II, 3 credit hours, 45 lec. (Fall, Spring, Summer)

Accounting for corporations; long-term liabilities, using future values and present values; statement of cash flows; financial statement analysis, and international accounting. Prerequisite: ACG 2001.

ACG 2071

Managerial Accounting, 3 credit hours, 45 lec. (Fall, Spring, Summer)

The basic principles of accounting techniques for the preparation of internal reports related to the management of the firm and the interpretation of financial data useful in the decision-making process within the economic framework of the firm. Prerequisites: ACG 2011 or ACG 2021.

ACG 2450 Δ

Computer Applications for Accounting, 3 credit hours, 45 lec. (Offered as needed)

An introductory course in computerized integrated accounting procedures found in the microcomputer environment. Includes application of software designed for general ledger, accounts payable and receivable, financial statement analysis, purchasing and sales order processing, fixed assets, payroll, inventory and departmental accounting. Prerequisite: ACG 2001.

ACO 1806*

Payroll Accounting, 3 credit hours, 45 lec. (Offered as needed)

Introduction to the theory, laws and procedures related to payroll activities of a business. Topics include payroll and personnel records, federal payroll laws, payroll operations, computerized payroll systems, and preparation of payroll registers, earnings records, and payroll tax forms. Prerequisite: ACG 2001.

AMH 1041

American Civilization, 3 credit hours, 45 lec. (Offered as needed)

Unified history of social and intellectual issues. A study of major American concerns and issues, the proposals, their formative ideas, the resolution attained in an emerging pattern of American character and heritage. 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.

AMH 2010

American History I, 3 credit hours, 45 lec. (Fall, Spring, Summer)

American History to 1865; describes the social, political, and economic development of the American people against the geographical background of the New World. Particular emphasis on American intellectual and political thought leading to the emergence of basic American character, ideas and attitudes. 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.

AMH 2020

American History II, 3 credit hours, 45 lec. (Fall, Spring, Summer)

American History from 1865, concentrating on industrial growth, the rise of corporate business, big labor, and government organization. Modification of basic American character and ideas as a continual historical process. 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.

AMH 2061

Southern Cultural History, 3 credit hours, 45 lec. (Offered as needed)

Southern Cultural History – describing the social, political, and economic development of the South. Particular emphasis on Southern community, music, folk art, folklore and other elements associated with the American South from the Civil War to the present.

AMH 2070

Florida History, 3 credit hours, 45 lec., (Offered as needed)

A survey of Florida history from the colonial period through the 20th century.

AMH 2071

Survey of Early History of Florida, 3 credit hours, 45 lec. (Offered as needed)

A survey of Florida history from pre-Columbian populations through the Territorial Period.

* 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

AML 2010**American Literature I, 3 credit hours, 45 lec. (Offered as needed)**

A course in American Literature from the Colonial period to the Civil War. This course may be used for 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.

AML 2020**American Literature II, 3 credit hours, 45 lec. (Offered as needed)**

A course in American Literature from Civil War to present. This course may be used for 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.

ANT 2000 ❖**Introduction to Anthropology, 3 credit hours, 45 lec. (Offered as needed)**

Introduction to the fundamental principles, concepts, methods and theories in Anthropology. Includes a brief introduction to the subdisciplines of Anthropology: Cultural Anthropology, Physical Anthropology, Archaeology, and Linguistics. A cross-cultural perspective will be paramount in the study of Anthropology.

ANT 2100 ❖**Introduction to Archaeology, 3 credit hours, 45 lec. (Offered as needed)**

Introduction to the fundamental principles, methods, and theories in Archaeology. Includes a history of the development of Archaeology, and examination of the nature of Archaeological data and research, an introduction to archaeological data and analysis, and an examination of approaches to synthesis and interpretation. North and South American archeology is studied, but nonwestern examples are also studied to enhance an understanding of the development of the discipline in Europe and the Americas.

ANT 2159C**Florida Southeast US Archaeology, 3 credit hours, 15 lec., 60 lab. (Offered as needed)**

Introduction to special topics in anthropology and archaeology. Example: field experience in archaeology, brief introduction to prehistoric native American cultures in Florida and the southeastern United States and field experience excavating a prehistoric site in Okaloosa County.

ANT 2930**Special Topics in Anthro/Archaeology, 3 credit hours, 45 lec. (Offered as needed)**

Introduction to special topics in anthropology and archaeology. Example: Survey and introduction to pre-historic and early historic Native American cultures in Florida and the Southeast U.S. Prerequisite: permission of instructor.

ARC 1131**Architectural Presentation, 3 credit hours, 15 lec., 60 lab. (Offered as needed)**

This course introduces basic ideas and presentation techniques directed towards developing design skills, such as drawing, perspective sketching, and graphics using a variety of media to include: pencil, ink, colored pencils, markers, and model building to be used in architectural presentations. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1301C**Design 1.1, 4 credit hours, 30 lec., 60 lab. (Offered Spring, Summer, Fall)**

The primary foci of this course are the development of two and three-dimensional graphic skills and the ability to think spatially and to manipulate elements in space. Analysis and design exercises are located primarily in abstract two/three dimensional space and deal with topics such as figure/ground relationships, line/plane/mass, the idea of systems, networks, repetition, and the relation of part to the whole. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 1302C**Design 1.2, 4 credit hours, 30 lec., 60 lab (Offered Spring, Summer, Fall)**

This course continues the emphasis and topics studied in Design 1.1, with increased expectation with regard to graphic and spatial manipulation ability. Students study exemplary works of architecture and art, beginning the process of developing an understanding of the role history plays in their creative explorations. By the end of the course, site and the human being are part of the design environment. This course is designed as part of an articulation agreement with Florida A&M University; students interested in transferring to another upper division school should consult with an advisor. Prerequisite: ARC 1301C.

ARC 2201**Theory of Architecture, 3 credit hours, 45 lec. (Offered as needed)**

An introduction to architectural theory, selected contemporary architectural theories and movements, their evolution and historical basis. This course is designed as part of an articulation agreement with Florida A & M University; students interested in transferring to another upper division school should consult with an advisor. Prerequisite: ETD 1100.

* 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.

Δ Technology-Across-the Curriculum Course

ARC 2303A**Design 2.1, 6 credit hours, 30 lec., 120 lab. (Offered as needed)**

Application of two-and-three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making. This course is designed as part of an articulation agreement with Florida A & M University; students interested in transferring to another upper division school should consult with an advisor. Prerequisite: ARC 2201.

ARC 2304**Design 2.2, 6 credit hours, 30 lec., 120 lab. (Offered as needed)**

Application of two- and three-dimensional design principles learned in first-year design, in preparation for whole building design in third year. Small building projects adding programmatic responsibilities to the design agenda. Emphasis on programmatic issues internal to the building such as function, circulation structure, resolution of form, space and place making, and human behavior. Prerequisite: ARC 2303A.

ARC 2472**Introduction to the Technology of Architecture, 4 credit hours, 60 lec. (Offered as needed)**

This course is the beginning of the technology sequence in the areas of structures, environment technology, and materials and methods of construction. It introduces themes such as the response of buildings to the natural environment, the strength, stiffness, and durability in building materials, and the quantitative method of analysis and design of building assemblies and support systems. It explores the relationship between building technology and the social, aesthetic, environmental and economic aspects of the settings in which buildings are located, and how these factors relate to the process of architectural design. This course is designed as part of an articulation agreement with Florida A & M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2501**Architectural Structures I, 3 credit hours, 45 lec. (Offered as needed)**

The emphasis of the course is on the development of the principles of statics and the application of these principles to the analysis and design of structural systems, primarily column, beam, slab systems, and the truss systems. The course builds on the basic ideas of structural form and material properties developed in Introduction to the Technology of Architecture. Prerequisite: any college level physics or calculus course, and concurrent enrollment in ARC 2472. This course is designed as part of an articulation agreement with Florida A & M University; students interested in transferring to another upper division school should consult with an advisor.

ARC 2701**Survey of History of Architecture, Part I, 3 credit hours, 45 lec. (Offered as needed)**

A critical exploration of the history and theory of architecture from pre-history through the end of the 13th Century. Examination of the making and intent of significant buildings and sites tracing the developments that have given meaning to the built environment and brought order to the tectonics of architecture. This course is designed as part of an articulation agreement with Florida A & M University; students interested in transferring to another upper division school should consult with an advisor.

ARH 1000**Humanities Art, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

This course offers a study in the basic concepts of art, including function, style and structure with emphasis on the interaction of medium and meaning and problems of art criticism. This class does not fulfill the art history requirements for art majors, but complements the art major's course of study as an elective. 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.

ARH 2050† ❖**Art History: Pre-Renaissance, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

Survey of significant contributions in art from prehistoric through Renaissance. Art will be considered in terms of stylistic qualities as well as iconography and historical context. 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.

† Courses listed with this symbol contain an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.

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

ARH 2051† ❖

Art History: Renaissance-18th Century Neo-Classicism, 3 credit hours, 45 lec. (Fall, Spring, Summer)

Survey of significant contributions in art from Renaissance through Contemporary. Art will be considered in terms of stylistic qualities as well as iconography and historical context. 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.

ARH 2060† ❖

Architecture History, 3 credit hours, 45 lec. (Fall, Spring, Summer)

Survey of significant contributions in architecture from prehistoric to modern times. Architecture will be considered in terms of stylistic qualities, structural type, and intended usage. Topics will be addressed according to historical content, societal background, and geographical location. 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.

ARH 2411† ❖

Art History: Modern Art, 3 credit hours, 45 lec., (Summer and as needed)

Surveys and analyzes the major artistic periods and movements from 18th century Neo-Classicism to present. Required for all Art majors. 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.

ARH 2930

Art History – 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.

† Courses listed with this symbol contain an oral communication component and may be used to satisfy the Speaking-Across-the-Curriculum requirement.

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

Δ Technology-Across-the Curriculum Course

ART 1201C

Two-Dimensional Design, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)

An introductory course, both theoretical and applied, dealing with the principles of organization and the elements of design in a two-dimensional format. This is a foundation course for all of the graphic arts: painting, printmaking, and the two-dimensional crafts. See page 44 regarding audit enrollment.

ART 1203C

Three-Dimensional Design, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)

Basic three-dimensional form design. Introduction to the concepts by which shape, texture, value, color space, various materials and surfaces are used to explore 3-D form in art. Art core class. See page 44 regarding audit enrollment.

ART 1300C

Drawing I, 3 credit hours, 15 lec., 60 lab., (Fall, Spring)

Basic drawing course covering different drawing media, line, form, shape, value and spatial relationships. Drawing problems involving a variety of subject matter will be explored. Emphasis is on value, drawing techniques, spatial relationships between shapes and composition. See page 44 regarding audit enrollment.

ART 1301C

Drawing II, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)

Continued study of drawing techniques explored in Drawing I. Provides experience with more complex drawing problems. Emphasis is on self-expression, value, color theory, and composition. A variety of subject matter and drawing media will be explored. Prerequisite: ART 1300C. See page 44 regarding audit enrollment.

ART 1495C

Corporate Imagery, 4 credit hours, 30 lec., 60 lab. (Offered as needed)

A beginning course that introduces students to the procedures and aesthetics of developing photographic illustrations for industrial and advertising use. Students will gain experience using the view camera, electronic lighting, and digital applications of their work.

ART 1600C Δ

Computer Art I, 3 credit hours, 30 lec., 30 lab. (Offered as needed)

A beginning course to develop basic technical and conceptual skills with a focus on an industry-standard vector-based drawing program. Students will create logos and illustrations typical of graphic design challenges.

ART 1701C

Sculpture I, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)

An introductory course in the technical and aesthetic consideration of sculptural forms. Includes a wide range of materials and expressions, representing past and present sculptural methods. Prerequisite: ART 1203C. See page 44 regarding audit enrollment.

ART 1702C**Sculpture II, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

Allows continued experience in more complex three-dimensional techniques; emphasis on individual projects and conceptual approach. Prerequisite: ART 1701C. See page 44 regarding audit enrollment.

ART 1750C**Pottery I, 3 credit hours, 15 lec., 60 lab. (Fall, Spring, Summer)**

The students shall be exposed to the production of pottery utilizing all known hand building techniques. Also includes introduction to potter's wheel and basic wheel fundamentals. First half of course is hand building, second half is devoted to development of skills on the potter's wheel. Students also learn how to glaze pottery and make glass. See page 44 regarding audit enrollment.

ART 1751C**Pottery II, 3 credit hours, 15 lec., 60 lab. (Fall, Spring, Summer)**

Continues hand building of Pottery I, but major emphasis is placed upon development skills utilizing the potter's wheel. Additional glazing experimentation is also emphasized. Prerequisite: ART 1750C. See page 44 regarding audit enrollment.

ART 1905**Independent Study – Art, 1 credit hour (Fall, Spring, Summer)**

A defined independent study 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 maybe of a specialized nature and not available through the 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 OWC, 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.

ART 2330C**Figure Drawing I, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

The development of technical skills and self-expression through drawing The Figure; course begins with anatomy studies, progresses to conceptualization of human form. Prerequisite: ART 1300C. See page 44 regarding audit enrollment.

ART 2331C**Figure Drawing II, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

This class is a continuation of Figure Drawing I. Emphasis is on composition and self-expression in relation to the human figure. Exploration of media and content will be encouraged. Prerequisite: ART2330C. See page 44 regarding audit enrollment.

ART 2400C**Introduction to Printmaking I, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

Introduction to various printmaking techniques possibly including block printing calligraphy, monotype, etching, and serigraphy. Content varies according to instructor. Two-dimensional design is recommended. Invites to all students. See page 44 regarding audit enrollment.

ART 2401C**Printmaking II, 3 credit hours, 15 lec., 60 lab. (Offered as needed)**

This class is a continuation of printmaking techniques including blockprinting, calligraphy, monotype, etching and serigraphy. Emphasis is on composition , exploration of printing methods and individual expression. Content varies according to instructor. Intro to Printmaking required. Prerequisite: ART 2400C. See page 44 regarding audit enrollment.

ART 2500C**Painting I, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

Course will include design elements, composition and spatial relationships. Emphasis is on color theory, color mixing, and execution thereof within a variety of subject matter. See page 44 regarding audit enrollment.

ART 2501C**Painting II, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

This course is a continuation of Painting I ART2500C with emphasis on further exploration of student's personal style and original techniques. Further experimentation in abstraction and emotional aspects of form and color are explored and expressed. Prerequisites: ART 1300C, ART 1201C, and ART 2500C. See page 44 regarding audit enrollment.

ART 2540C**Water Color I, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

An introduction to transparent watercolor techniques applied to various subject matter through demonstrations and various lab experiences. Open to all students. See page 44 regarding audit enrollment.

ART 2541C**Water Color II, 3 credit hours, 15 lec., 60 lab. (Fall, Spring)**

Allows continued experience in more complex water color technique and subject mater. Emphasis is on composition and individual expression. Prerequisite: ART 2540C. See page 44 regarding audit enrollment.

ART 2601C* Δ**Computer Art II, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

An advanced graphic design course building upon the skills covered in Computer Art I; the course includes increased challenges relating to conceptual skills and multi-software integration relating to typical print-based design problems. Access to a 35 mm camera is required. Prerequisite: ART 1600C.

ART 2602C* Δ**Digital Imaging I, 4 credit hours, 30 lec., 60 lab. (Offered as needed)**

A digital illustration production course with a strong emphasis on concept development and image making skills. Students will create complex imagery based on manipulations of photographs or traditional drawings and paintings with an industry-standard image editing/manipulation software. Access to a 35 mm camera is required.

ART 2603C* Δ**Digital Imaging II, 4 credit hours, 30 lec., 60 lab. (Offered as needed)**

A continuing course which expands upon the technical and conceptual foundation laid in Digital Imaging I. Students will explore advanced software techniques and greater challenges of personal or commercial expression in digital media. Prerequisite: ART 2602C.

ART 2834C**Gallery Practices, 3 credit hours, 30 lec., 30 lab., (Offered as needed)**

The principles of Art Gallery practices and operations. Both theoretical and practical experiences will be obtained through lectures, field trips and class projects.

ART 2930**Art – 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.

ART 2955**Portfolio Development, 3 credit hours, 15 lec., 60 lab. (Offered as needed)**

Development of a working portfolio through studio project aimed at fulfilling the general requirements the average company, university, art school or advertising agency looks for in a portfolio presentation. Prerequisite: ART 1201C, ART 1300C.

AST 1002**Astronomy, 4 credit hours, 60 lec. (Fall, Spring, Summer)**

A one-term course of lectures and demonstrations designed to meet the general education requirements in physical science of non-science majors, for students who need a preparatory course prior to taking physics, and for students in related scientific fields that need a scientific elective. The course includes topics in elementary physics, naked-eye astronomy, the moon, sun, solar system, stars, and galaxies. A working knowledge of arithmetic and simple algebra is required.

BCN 1230**Building Construction Materials and Processes, 3 credit hours, 45 lec. (Offered as needed)**

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry.

BCN 1272***Blueprint Reading for Commercial Construction, 3 credit hours, 45 lec. (Offered as needed)**

A course to familiarize non-drafting students with techniques of blueprint reading and the fundamentals of construction methods that make blueprint reading meaningful.

BCN 1520***Electrical Systems in Construction, 3 credit hours, 45 lec. (Offered as needed)**

A course to familiarize students with electrical terminology, practices, methods, code requirements and safety and health in construction.

BCN 1567***Plumbing and Gas Construction Practices, 3 credit hours, 45 lec. (Offered as needed)**

A course to familiarize students with Plumbing and Gas code requirements, terminology, methods, practices, processes and safety and health used in building construction.

BCN 2231**Building Construction Materials and Processes II, 3 credit hours, 45 lec. (Offered as needed)**

Course designed to introduce the student to terminology, methods, procedures, materials, and processes used in the construction industry. The focus of the course will cover Divisions 9 through 16 of the construction industry.

BCN 2560***Mechanical Systems in Construction, 3 credit hours, 45 lec. (Offered as needed)**

A course to familiarize students with mechanical trades terminology, methods, practices, code requirements processes, and safety and health criteria in mechanical construction.

BCN 2721***Construction Management/Planning, 3 credit hours, 45 lec. (Offered as needed)**

The course covers project development and organization from pre-construction site investigation to final completion. The course will include the management of project estimates, plans, schedules, operations and safety. The student will become knowledgeable about documents used in the construction industry for bid, contracts, zoning, permits, bonds, loans specifications and drawings. Cost engineering, procurement, value engineering and quality assurance will be covered. Cost management through job cost analysis and purchase order systems will also be covered. Prerequisite: BCT 2600.

BCT 1706***Construction Documentation, 3 credit hours, 45 lec. (Offered as needed)**

A course to familiarize a student with documents used in the Construction Industry to advertise for bids, contracts, change orders, extras, specification, insurance and bid bonds.

* 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

BCT 1763***Construction Safety and Health, 3 credit hours, 45 lec. (Offered as needed)**

A basic course in construction safety and health covering such topics as: theories of accident causation; workplace hazards; hazard analysis and prevention; accident reporting; OSHA construction standard and safety practices; environmental safety; violence in the workplace; ergonomics; ethics and safety; workers' compensation; and stress on the job.

BCT 2600***Construction Estimating, 3 credit hours, 45 lec. (Offered as needed)**

A course in estimating as it relates to the construction industry covering references, estimating methods, take-off organization and presentation; material take-off, cost estimating in heavy construction, mathematical formulas for estimating, quantity take-off from plan review, and computer estimating overview. Prerequisites: BCN 1230 and BCN 1272.

BCT 2611***Structural Systems in Construction, 3 credit hours, 45 lec. (Offered as needed)**

A course to familiarize students with structural terminology, practices, methods, code requirements and safety and health criteria in construction.

BOT 1010C**Botany, 4 credit hours, 45 lec., 45 lab. (Spring)**

A course designed to give the student an introduction to knowledge about botany with emphasis on the flowering plants, and to show our dependence on plants to sustain not only human life but all other living organisms.

BRC 1001***Introduction to Banking, 3 credit hours, 45 lec. (Offered as needed)**

Designed to give students a broad understanding of the nature of banking and its relationship to the U.S. economy.

BSC 1005 Δ**General Biology, 4 credit hours, 60 lec. (Fall, Spring, Summer)**

The principles of biology are included. Human Biology is emphasized. Man's effect on the environment is considered wherever appropriate. (NO LABORATORY — Not for majors in Biology).

BSC 1005L**Biology Lab, 1 credit hour, 30 lab. (Offered as needed)**

Laboratory for general biology. Experimental methodology and technique. Not recommended for biology majors. Pre- or corequisite: BSC 1005 or equivalent.

BSC 1010C Δ**Principles of Biology I, 4 credit hours, 45 lec. 45 lab. (Offered as needed)**

A study of the structure and function of the major biological molecules and the organization of these molecules at the subcellular level; of cellular growth including bioenergetics, metabolism and its control, and the movement and incorporation of macromolecules as related to cell expansion and repair; and the study of the control of cellular growth including both genetic and biochemical control mechanisms. Required for Biology, Pre-Med, and most Pre-Professional Science majors. Prerequisites: high school biology and chemistry or CHM 1020 and eligibility to enroll in MAC 1105.

BSC 1011C**Principles of Biology II, 4 credit hours, 45 lec., 45 lab., (Offered as needed)**

A continuation of BSC 1010C. A survey of organisms with emphasis on plants and animals. A survey of vertebrate systems with emphasis on applied physiology. Evolution, inheritance and ecology in major phyla or divisions will be included. Emphasis on man's role in shaping the biosphere. Required for Biology, Pre-Med, and most Pre-Professional Science majors. Prerequisite: BSC 1010C.

BSC 1050C**Environmental Studies, 4 credit hours, 45 lec., 30 lab. (Offered as needed)**

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

BSC 1080**Essentials of Anatomy and Physiology, 3 credit hours, 45 lec. (Offered as needed)**

This course surveys basic structure and function of the human body with emphasis on terminology and anatomy. This course may be used as a General Educational elective for A.A.S. students only.

BSC 1085C Δ**Anatomy & Physiology I, 4 credit hours, 45 lec., 30 lab. (Fall, Spring, Summer)**

A study of the human organism to include cells, tissues, skeleton, muscular system and nervous system.

BSC 1086C**Anatomy & Physiology II, 4 credit hours, 45 lec., 30 lab. (Fall, Spring, Summer)**

A study of the human organism to include the cardiovascular system, the fluid electrolyte balance, and the respiratory, excretory, endocrine, reproductive, gastrointestinal and immune systems.

BSC 1250C**Introductory Tropical Biology, 4 credit hours, 45 lec., 30 lab. (Offered as needed)**

An introduction to the Estuarine and Marine biota of tropical regions to include saltmarsh, mangrove, sandy, and coral shorelines. Emphasis will be placed on energy transfer and zonation. Prerequisite: one college level science 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

BSC 1905**Independent Study – Biology, 1 credit hour, 15 lec. (Fall, Spring, Summer)**

A course designed to (1) allow a student to complete part of a course taken elsewhere and thereby complete general education requirements, (2) to go deeper into special areas of interest. This course may be taken up to four (4) times for credit.

BSC 2946**Directed Work Study – Biology, 1 credit hour, 45 lab. (Offered as needed)**

Practical experience with use and maintenance of lab equipment and materials. Participation in support activities and organizational routines of lab courses. Course fees may be waived. May be taken four (4) times for credit. Departmental approval following interview is required.

BUL 2241**Business Law I, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

Introductory course in business law with objective of presenting the law underlying business transactions. Course includes the study of the Law of Contracts, the Law of Bailments, and the law of sales based on the Uniform Commercial Code. Recommended for business degree students.

BUL 2242**Business Law II, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

Course context explores laws relative to Negotiable Instruments, Agency, Partnerships, (includes study of Uniform Partnership Act), Corporation Law, Creditors Rights, Consumer Protection and Insurance. Based on Uniform Commercial Code.

CCJ 1000***Introduction to Criminology, 3 credit hours, 45 lec. (Spring)**

A study of the nature and causes of crime and delinquency; the development of delinquent and criminal behavior; specific behavioral problems of addicts, compulsive and habitual offenders and juvenile offenders. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CCJ 1020**Introduction to Criminal Justice, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

An introduction to the philosophical and historical background of law enforcement and the administration of criminal justice. Organization and jurisdiction of local, state, and federal law enforcement agencies. Court and Criminal procedures. Career opportunities in Criminal Justice field.

CCJ 1192***Crisis Intervention, 3 credit hours, 45 lec. (Offered as needed)**

A study of the nature and causes of human stress in crisis situations involving criminal justice practitioners to include law enforcement, judicial and correctional personnel: definitions, recognition and assessment, general calming techniques, intervention: safety, abnormal behavior and suicide, role playing, causes of psychological and physiological stress agents inherent in the duties of criminal justice practitioners and countermeasures to anxiety and stress reduction.

CCJ 1500***Juvenile Delinquency, 3 credit hours, 45 lec. (Offered as needed)**

A study of the nature and cause of juvenile delinquency, the development of the delinquent and criminal behavior, specific criminal justice subsystem (law enforcement, judicial, corrections) problems dealing with juvenile delinquents from initial contact through final disposition and treatment. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CCJ 1611***Child Abuse and Neglect, 3 credit hours, 45 lec. (Offered as needed)**

This course was designed to provide the student with an enhanced awareness of child abuse symptoms and patterns, including information and case studies on specific abuse and social problems.

CCJ 1646***Organized Crime, 3 credit hours, 45 lec. (Offered as needed)**

A course designed to provide the student with an overview of organized crime structures. To understand organized crime with regard to its history, origins and socio-economic impact on our society. This course provides insight into the various international and national organized crime families.

CCJ 1650***Introduction to Narcotics Investigation, 3 credit hours, 45 lec. (Offered as needed)**

This introductory course in narcotics investigation and identification is designed to provide the student with an overview of narcotics and the role of the investigative agencies, drug traffic flow patterns, major classes of drugs and the drug profit traffic. Instruction will cover techniques of investigative observation, patrol and case development, physical identification of drugs, symptoms of abuse, methods of abuse and appropriate Florida Statutes. This is also a Criminal Justice Standards and Training Commission advanced course.

CCJ 1671***Women in Criminal Justice, 3 credit hours, 45 lec. (Offered as needed)**

This course is designed to provide students with a wide perspective of female roles in the criminal justice system.

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

CCJ 1935*

Criminal Justice Seminar, 3 credit hours, 45 lec. (Offered as needed)

Exploration, development and discussion of contemporary problems in the Criminal Justice System.

CCJ 1941*

Internship – Criminal Justice, 3 credit hours, 225 hours (Offered as needed)

On-the-job training in the programs in which the student is enrolled. The student is under the supervision at work of a qualified supervisor appointed by the respective agency. 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 2 weeks prior to the close of the semester. This course may be repeated twice for a total of 6 semester hours.

CCJ 2680*

Domestic Intervention, 3 credit hours, 45 lec. (Offered as needed)

This course is a part of the Criminal Justice Standards and Training Commission Approved Advanced Training Program. This course is designed to provide the officer with an enhanced awareness of domestic intervention symptoms and techniques, including information and case studies on specific domestic and social problems. Prerequisites: Basic Recruit Training Course.

CCJ 2681*

Introduction to Domestic Intervention, 1 credit hour, 15 lec. (Offered as needed)

This is an introductory course dealing with domestic issues, including violence. It is designed to provide the student with an enhanced awareness of domestic intervention symptoms and techniques, including information and case studies in specific domestic and social problems.

CCJ 2682*

Introduction to Workplace Violence Awareness, 1 credit hour, 15 lec. (Offered as needed)

A general overview of the growing problem of violence in the workplace, what managers/supervisors need to be aware of when dealing with potential violent employees as well as what steps they can take to protect not only themselves but other employees.

CCJ 2905*

Independent Study – Criminal Justice, 1 credit hour, 45 lab. (Fall, Spring)

Directed study and individual projects to meet the student's interests in a specialized area of Criminal Justice for which present course availability is limited.

CDA 2500* Δ

Network Technology, 3 credit hours, 45 lec. (Fall, Spring, Summer)

This course is designed to introduce students to the terminology and concepts of the network industry, including data communications and network services, OSI Model, topology, network media, connectivity devices and security. This is preparation for the CompTIA Network+ certification and the first course in the MCSE/MCSA certification program.

CDA 2523* Δ

Windows Client Operating System, 3 credit hours, 30 lec. 30 lab. (Fall, Spring, Summer)

This course addresses the implementation and desk-top support needs of the MS client software, including installation, configuration and management of hardware and file systems, user profiles, remove users, and monitoring of resources and performance. Prerequisite: CDA 2500 or equivalent. This course prepares the student for the MCP exam, a core requirement for Windows MCSE or MCSA.

CDA 2524* Δ

Novell Administration I, 3 credit hours, 30 lec. 30 lab. (Offered as needed)

This course will provide students with the opportunity to develop the knowledge and skills necessary for the design and implementation of a Netware System to include: network service and support various network technologies; Netware printing, as well as Netware administration, installation and configuration. Prerequisites: CDA 2500 with grade of "C" or higher, or equivalent.

CDA 2525* Δ

Windows Server Environment, 3 credit hours, 30 lec. 30 lab. (Offered as needed)

This course will provide students with the opportunity to develop the skills required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data. Prerequisite: CDA 2523 or equivalent. This course prepares the student for the MCP exam, a core requirement for Windows MCSE or MCSA.

CDA 2529* Δ

Novell Administration II, 3 credit hours, 30 lec. 30 lab. (Offered as needed)

To provide advanced concepts of Network Administration, using Novell Network Operating System software. Prerequisite: CDA 2524 with a grade of "C" or better.

CET 1600C* Δ

Networking Fundamentals, 3 credit hours, 30 lec., 30 lab. (Offered as needed)

This course introduces the student to the basics of internetworking technology. This is also the first of four courses designed to prepare a student to take the Cisco Certified Network Associate Exam. The student will study Networks and Layers, Networking Devices, IP Addressing, ARP, and RARP, Media and Design, Topology, Structured Cabling, Electricity, and Electronics and Network Management.

CET 1610C* Δ

Router Theory, 3 credit hours, 30 lec., 30 lab. (Offered as needed)

Basic Router terminology and configurations are studied in this course. The student will study Router Components, Router Configuration, IOS, TCP/IP, IP Addressing, and Router Protocols. This is one of the four courses designed to prepare a student to take the Cisco Certified Network Associate Exam (CCNA). Prerequisite: CET 1600C.

* 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

CET 1630C* Δ**Network Cabling – Copper Media, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

This course is designed for computer repair and network technicians. It will provide the students with the knowledge and skills necessary to become entry-level technicians in the data cabling industry. The emphasis of the course is on tool use, construction techniques, industry standards, troubleshooting and repair of CAT 5 copper media. This course prepares students for introductory, vendor-neutral data cabling certification BICS/ETAI exams.

CET 1632C* Δ**Network Cabling – Fiber Optic Media*, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

This course is designed for computer repair and network technicians. It will provide the students with the knowledge and skills necessary to become entry-level technicians in the data cabling industry. The emphasis of the course is on tool use, construction techniques, industry standards, troubleshooting, and repair of fiber optic media. This course prepares students for introductory, vendor-neutral data cabling certification BICS/ETAI exams.

CET 2114C***Digital Fundamentals I, 4 credit hours, 30 lec., 60 lab. (Offered as needed)**

This course introduces the basics of logic and its application to electronic circuits. The student will develop the skill of changing a problem into a logic expression and then simplifying the expression. Both Boolean algebra and Karnaugh mapping are used for simplification. Subjects studied include: gates, flip-flops, counters, registers, arithmetic circuits, Multiplexers, demultiplexers, and representative digital systems.

CET 2123C***Microprocessor Fundamentals, 4 credit hours, 30 lec., 60 lab. (Offered as needed)**

This course introduces the architecture, instruction set, and machine level programming of an 32-bit microprocessor. Subjects covered include: programming, signal analysis, input/output, and fault analysis. The student will use an oscilloscope to verify the presence of correct data on the bus structure. A logic analyzer will also be used for signal verification, timing, and for fault isolation. Students will also develop a program which will permit the microprocessor to control some processes outside of the computer, through use of the I/O controller. Prerequisite: CET 2114C or equivalent.

CET 2152C* Δ**Computer/Analysis & Troubleshooting, 4 credit hours, 30 lec., 60 lab. (Offered as needed)**

This course will expand on the knowledge acquired in the Microprocessor Fundamentals course (CET 2123C). Topics covered will include: troubleshooting techniques, memory (RAM, DRAM, EPROM) organization and troubleshooting, input/output interfacing and troubleshooting. A more advanced level of digital system troubleshooting will be introduced including the use of logic analyzers, signature analyzers, and oscilloscope multiplexing. Prerequisite: CET 2123C or equivalent.

CET 2154C* Δ**Microcomputer Troubleshooting and Networking, 4 credit hours, 30 lec., 60 lab. (Offered as needed)**

This course introduces advanced PC system troubleshooting and also requires the student to upgrade the PC system to a multimedia system by installation of the CD-ROM and soundcard. Configuration and utilization of the multimedia components will also be studied. This course will also include installation and maintenance of local area networks. Prerequisite: CET 2173C, or equivalent.

CET 2171C* Δ**PC Hardware A+, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

This course is designed to prepare the student to take the A+ Certification exam, by teaching the student basic technical skills needed to understand the function and operation of the major elements of personal computer systems, and how to localize and correct common hardware and software problems. Prerequisite: CET 2173C or equivalent.

CET 2173C* Δ**Microcomputer Servicing, 4 credit hours, 30 lec., 60 lab. (Offered as needed)**

This course introduces the PC system, how it works and how the operating system controls it. Also studied are the components which make up the PC system, how to use multimeters and logic probes to make measurements and troubleshoot the system with the aid of diagnostic software. Students will perform fault analysis of simulated PC defects. In addition, students will learn to disassemble and reassemble/modify the PC hardware components.

CET2178C* Δ**PC Operating Systems A+, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

This course is designed to prepare the student to take the A+ Certification exam by making the student proficient in personal computer operating systems, including DOS, Win 95/98, and Win NT. Major topics include disk, file and memory management, system configurations, menu driven processing, graphical user interfaces, boot files, disk caching, virtual memory, device drivers, TSRs, and basics system errors. Prerequisite: CET 2171C or equivalent.

CET 2497* Δ**Windows Network Infrastructure, 3 credit hours, 30 lec. 30 lab. (Offered as needed)**

This course addresses the implementation, management and maintenance of server networking technologies. Tasks include implementing routing, managing DHCP, DNS, and WINS, securing IP traffic with IPSec and certificates, and implementing a network access infrastructure with connections for remote access clients. Prerequisite: CDA 2525 or equivalent. This course prepares the student for the MCP exam, a core requirement for Windows MCSE or MCSA.

* 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

CET 2615C* Δ**Advanced Router Theory, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

This course introduces the student to fundamentals of LAN configurations. This is also the third of four courses designed to prepare a student to take the Cisco Certified Network Associate Exam. The student will study LAN Switching, VLANs, LAN Design, IGRP, Access List, and IPX. Prerequisite: CET 1600C and CET 1610C.

CET 2620C* Δ**Project Based Routing Design and Administration, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

This course introduces the student to advanced router configurations. This is also the fourth of four courses designed to prepare a student to take the Cisco Certified Network Associate Exam. The student will study LAN Switching, VLANs, LAN Design, IGRP, Access List, and IPX. Prerequisites: CET 1600C, CET 1610C, CET 2615C.

CET 2625C* Δ**Cisco Network Design, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

Build network design skills required for certification as a Cisco Certified Design Associate (CCDA). Learn to characterize existing networks and determine new customer requirements, develop appropriate network topologies for various environments, design naming schemes and IP/IPX addressing schemes, select the best routing and bridging protocols to optimize performance, and create design documentation. Prerequisites: CET 1600C, CET 1610C, CET 2615C, CET 2620C.

CET 2685C* Δ**Fundamentals of Network Security, 3 credit hours, 30 lec., 30 lab. (Offered as needed)**

Introduction to network security and overall security processes. This hands-on, skill-based course focuses on the design and implementation of security solutions to reduce the vulnerability of the network, using VPNs, network routers and a firewall. This course helps prepare the student for the CompTIA Security + certification, and Cisco SECUR and CSPFA exams in preparation for the Cisco Firewall Specialist certification. Prerequisites: CET 1600C, CET 1610C, CET 2615C, and CET 2620C or CCNA certification.

CET 2854C* Δ**Fundamentals of Wireless LANs, 3 credit hours, 30 lec., 30 lab. (Fall, Spring)**

Develop, implement and troubleshoot wireless networks. This hands-on, skill-based course focuses on the design, planning and operation of wireless networks, with an overview of technologies, security, and design best practices. This course helps prepare the student for the Cisco Wireless LAN Support Specialist designation (WLANFE). Prerequisites: CET 1600C and CET 1610C.

CET 2905* Δ**Independent Study Computer Engineering, 1 credit hour, 30 lab. (Offered as needed)**

This is a directed study course to provide computer engineering students with individual projects designed to meet specific needs in areas of computer engineering technology for which present course availability is limited. Prerequisite: Instructor or departmental chair approval

CGS 1100 Δ**Microcomputer Applications, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

The discussion and practical applications of Windows operating systems, word processing, spreadsheets, database management, presentation software, and various communications topics.

CGS 1172* Δ**Web-based Programming I, 3 credit hours, 45 lec. (Offered as needed)**

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-commerce applications. Prerequisite: CGS 2820.

CGS 1550* Δ**Introduction to World Wide Web, 3 credit hours, 45 lec. (Offered as needed)**

An introduction to the required hardware, software, procedures, uses and building of pages on the World Wide Web and the Internet.

CGS 1570 Δ**Computer Applications for Business, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

A hands-on course using computer software (Word processor, spreadsheet and database) to facilitate the activities involved in the business environment. Prerequisite: CGS 1100 or competency exam.

CGS 1760* Δ**Fundamentals of UNIX, 3 credit hours, 45 lec. (Offered as needed)**

This course is designed to introduce the UNIX operating system to new users. The student will learn fundamental features of the operating system, including file system navigation, file permissions, editors, command shells, and basic network use. Provides a foundation for more advanced courses in UNIX administration and certification.

CGS 1843 Δ**Intro to Electronic Commerce, 3 credit hours, 45 lec. (Offered as needed)**

This course is designed to provide students with an overview of the dynamics of electronic commerce and how it links information technology to business objectives. Course may not transfer to all State University System institutions.

* 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

CGS 2173* Δ**Web-based Programming II, 3 credit hours, 45 lec. (Offered as needed)**

This course is designed to extend the student's understanding of web-based programming techniques, and give them practical experience in the use of a range of technologies for creating e-commerce applications including instruction in the key design principles and implementation techniques for software agents in e-commerce applications. Prerequisite: CGS 1172.

CGS 2541* Δ**Database Concepts, 3 credit hours, 45 lec. (Offered as needed)**

This course will provide an introduction to data modeling and the design and implementation of relational databases and extend the students' understanding of the principles and techniques used in the design and implementation of modern database systems. Prerequisite: CGS 1100.

CGS 2576* Δ**Introduction to Microsoft Word, 1 credit hour, 15 lec. (Offered as needed)**

An introduction to Microsoft Word software by emphasizing the functions of the program.

CGS 2763* Δ**UNIX Administration, 3 credit hours, 45 lec. (Offered as needed)**

This course is designed for network administrators in a UNIX operating environment. UNIX operating system concepts, architecture and administration will be explored using Linux. Includes shell programming, database managements, rapid application development, and programming tools such as PERL and C++. Prerequisite: CDA 2500 and CGS 1760.

CGS 2820* Δ**Web Authoring with HTML, 3 credit hours, 45 lec. (Offered as needed)**

This course introduces programming in techniques associated with web-based languages. The student will learn to create innovative and useful windows programs. Topics to be discussed include variables, string handling, loops and arrays, formatting techniques, labels, buttons, menus, loading and saving, error handling, graphics, and linking applications.

CGS 2840* Δ**Internet E-Commerce Technologies, 3 credit hours, 45 lec. (Offered as needed)**

This course will extend student's understanding of web-based technologies and enable them to design and implement e-commerce applications, including an understanding of the design of modern distributed database systems, the supporting network technology and the construction of web-based applications.

CGS 2844* Δ**E-Commerce Security, 3 credit hours, 45 lec. (Offered as needed)**

This course is designed to provide the student with an understanding of e-commerce security, and give them practical experience in the use of a range of technologies for insuring security in an e-commerce application. Prerequisite: CGS 1843.

CGS 2930 Δ**E-Commerce Seminar, 3 credit hours, 45 lec. (Offered as needed)**

Students will apply their understanding of the strategies, tactics, and concepts of electronic commerce. The course stresses the real-world practice of e-commerce through the development of a comprehensive e-commerce business project. Course may not transfer to all State University System institutions. Prerequisites: CGS 1172, CGS 1843.

CHD 1223***Guidance for Young Children, 3 credit hours, 45 lec. (Spring and as needed)**

A study of principles, methods, guidance and discipline techniques used to promote positive social development in young children; influence of environment and developmental level of child on social behavior.

CHD 1230***Child Growth and Development II, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

Study of the physical, emotional, social, and intellectual growth and development of the school age child (6 through 12 years) up to preadolescence. Includes dynamics of behavior, child guidance and needs of exceptional children.

CHD 1312***Infant and Toddler, 3 credit hours, 45 lec. (Fall and as needed)**

This course provides the student with information pertinent to the care of infants and toddlers. Special attention is given to selection of developmentally appropriate curriculum. Course work satisfies the Child Development Associate competency standards for infant/toddler.

CHD 1430***Observing and Recording Child Behavior, 3 credit hours, 30 lec., 30 lab. (Fall, Spring, Summer)**

Designed to increase objectivity and proficiency in observing and interpreting children's behavior; in addition, to increase awareness of normative patterns of children from birth through five years of age.

CHD 1531***Parenting Education, 3 credit hours, 45 lec. (Offered as needed)**

This course is comprehensive in scope, emphasizing skills and concepts of parenting which include: adjustment to parental roles; parent-child communication, care, growth, and development of children; cultivating strong families; special concerns; alternative family structures; educational institutions working effectively with parents; and agencies and legislation affecting children and parents.

* 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

CHD 1534***Home Visitor Programs I, 2 credit hours, 30 lec. (Offered as needed)**

This course provides the student with information and strategies to successfully implement a home visitor program for families with children ages prenatal to three years.

CHD 1535***Home Visitor Programs II, 1 credit hour, 15 lec. (Offered as needed)**

This course provides the student with information and strategies to successfully implement a home visitor program for families with children ages three to kindergarten entry.

CHD 1800***Early Childhood Program Administration, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

This course provides the student with management and administrative skills related to child care services. Instruction includes: director responsibilities; staff selection, supervision, and evaluation; planning for budget, nutritional services, facility maintenance, health, and safety; and marketing techniques.

CHD 1941***Internship, Child Development, 3 credit hours, 90 lab. (Fall, Spring, Summer)**

On-the-job training in Applied Associate of Science degree or College Credit Certificate programs in which the student is enrolled. The student is under the supervision, at work, of a qualified supervisor appointed by the respective agency, who works with the OWC instructor regarding student's OJT objectives based on student's goals and prior training. The supervisor will rate the student's performance, knowledge, comprehension, dependability, initiative, cooperativeness based on OJT performance. OWC instructor will evaluate student OJT experience in consultation with agency supervisor regarding OJT performance and project paper on approved project submitted two weeks prior to close of semester. This course may be repeated four times for a total of 12 semester hours. Prerequisites: CHD 2322, CHD 2432A, DEP 2100.

CHD 2322***Programs for Young Children, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

Study of principles and practices of programs for young children; current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children.

CHD 2332A***Curriculum for Young Children II, 3 credit hours, 15 lec., 60 lab. (Fall and as needed)**

Study of and development of effective skills and techniques used in program planning and use of creative media for young children. Prerequisite: CHD 2432A.

CHD 2334A***Curriculum for Young Children III, 3 credit hours, 15 lec., 60 lab. (Spring and as needed)**

Study of the principles, methods, and materials used to assist young children acquire basic skills to use language effectively and competently; evaluation and development of appropriate teaching materials to use with young children. Prerequisite: CHD 2332A.

CHD 2337A***Curriculum for Young Children IV, 3 credit hours, 15 lec., 60 lab. (Summer and as needed)**

Study of the basic concepts, methods, and materials of mathematics and science appropriate to the education of young children. Identification of the role of staff members in the center for the education of young children. Assignment with young children in community agencies. Prerequisite: CHD 2334A.

CHD 2432A***Curriculum for Young Children I, 3 credit hours, 15 lec., 60 lab. (Fall, Summer, Spring)**

Study of the techniques of using language arts, science, art, social studies, music, mathematics, and physical activities with young children. Participation in Child Development Education Center.

CHD 2433***Child Development Seminar, 3 credit hours, 45 lec. (Offered as needed)**

This course focuses on current trends and issues in the field of early childhood education. The topic will vary based on current trends and issues.

CHM 1020**Chemical Science, 4 credit hours, 60 lec. (Fall, Spring, Summer)**

Fundamental principles and theories of matter and energy. Atomic theory, periodicity, properties, structure, kinetic molecular theory, bonding, solutions, scientific method, carbon compounds. This course serves as an introduction to chemistry for non-science majors, satisfying the General Education requirement for the A.A. degree; and as a preparatory course for students intending to enter college chemistry.

CHM 1020L**Chemical Science Lab, 1 credit hours, 30 lab. (Fall, Spring, Summer)**

A laboratory experience to augment the principles covered in chemical science to include fundamental principles and theories of the dual nature of physical existence, matter and energy; atomic theory; periodicity of elements; dependence of properties on structure; kinetic molecular theory; the nature of chemical bonding.

CHM 1032C**General Chemistry for Life Sciences, 4 credit hours, 45 lec., 30 Lab (Fall, Spring, Summer)**

This course is a one-semester introduction to chemistry especially appropriate for those pursuing a degree for a career in an allied health science field, although open to all students. Topics include atomic theory, bonding, nomenclature, gases, acids and bases, stoichiometry, and solutions, with an additional emphasis on reaction rates, equilibria, organic and biochemistry, and organic and biomolecules and their roles and functions in living organisms. Prerequisite: MAT1033A or appropriate placement test.

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

CHM 1032L**General Chemistry for Life Sciences Lab, 1 credit hours, 30 lab. (Fall, Spring, Summer)**

This laboratory course is designed to teach basic chemistry laboratory skills and reinforce topics covered in CHM 1032 and CHM 1020. Among the experiments the student will perform are: basic safety practices in a laboratory setting; learn how to perform density measurements; find the energy content in calories in certain foods; study reaction rates and equilibria; learn properties of gasses and how to predict them with the ideal gas law; perform simple separations of mixtures. Prerequisite: MAT1033A or appropriate placement test.

CHM 1045C**College Chemistry I, 4 credit hours, 45 lec., 45 lab. (Fall, Spring, Summer)**

Quantitative approach to modern theoretical and descriptive chemistry with appropriate development of laboratory technique. Includes symbols, formulas, equations, atomic structure, bonding, states of matter, stoichiometry, thermo-chemistry, solutions, colloids, molecular orbitals, periodicity and properties. A two semester sequence in general chemistry with laboratory exercises and demonstrations. University transfer credit. Prerequisite: MAC 1102 or MAC 1105 required. High School Chemistry or Physics, CHM 1020 or PHY 1020 advised.

CHM 1046C**College Chemistry II, 4 credit hours, 45 lec., 45 lab. (Fall, Spring, Summer)**

Continuation of CHM1045C. Includes kinetics, chemical equilibrium, acids and bases, thermo-dynamics, non-metals and their compounds, electrochemistry, redox, the atmosphere, hydrocarbons, biochemistry, nuclear chemistry, coordination compounds, and qualitative analysis. Prerequisite: CHM 1045C.

CHM 2210C**Organic Chemistry I, 4 credit hours, 45 lec., 45 lab (Fall)**

This course will present the correlation between structure and physical and chemical properties of organic compounds. The principle types of mechanisms involved in organic reactions will be discussed on aliphatic and aromatic hydrocarbons, alkyl halides, alcohols and ethers. Laboratory exercises illustrate these topics. Prerequisite: CHM 1046C.

CHM 2211C**Organic Chemistry II, 4 credit hours, 30 lec., 30 lab. (Spring)**

In continuation of Organic Chemistry I (CHM 2210) the relationships between functional groups and properties of organic compounds will be discussed. Infrared -, NMR-, and mass spectroscopy will be used for identification of organic compounds and for structure analysis. The transition state theory is applied to interpret the nucleophilic addition reactions the carbanion condensation reactions, the interconversions of carbonyl compounds and the nucleophilic acyl substitution of carboxylic acids and their derivatives. Biochemical topics, i.e. lipids, carbohydrates, amino acids and proteins are included. Prerequisite: CHM 2210C.

CIS 1000 Δ **Introduction to Computer Science, 3 credit hours, 45 lec. (Fall, Spring, Summer)**

A broad survey of computing and computer science topics appropriate for computer science, computer engineering, and information systems students. Includes an introduction to structured programming. Math placement at the college algebra level strongly advised.

CIS 1940* Δ **Internship in Computer Studies, 3 credit hours, 90 lab. (Fall, Spring, Summer)**

On-the-job training in the Associate of Science and Associate of Applied Science degree programs in which the student is enrolled. The student is under the direction of a full-time faculty member and under the supervision at work of a qualified supervisor. The faculty member in concert with the student and the student's supervisor will design a plan of study. The faculty member will periodically meet with the student and the supervisor to evaluate and if necessary modify the plan as deemed appropriate. 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 term. May be taken four times for a total of 12 credit hours. Prerequisite: Permission of the instructor.

CJC 1350***Discipline and Special Confinement Techniques, 3 credit hours, 45 lec. (Offered as needed)**

The student is introduced to the essentials of discipline and special confinement techniques necessary for the corrections profession. The topics to be introduced include physical operation, physical force, recognizing abnormal behavior, verbal and nonverbal communications.

CJC 2000***Introduction to Corrections, 3 credit hours, 45 lec. (Fall)**

Theories of punishment and incarceration; the organization of correction programs and institutions, principles of probation and parole, role of parole and probation officers, legal implications; problems of rehabilitation. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

CJC 2162***Introduction to Probation & Parole, 3 credit hours, 45 lec. (Offered as needed)**

This course reviews the theories and practices of probation and parole within a community setting. The study of probation and parole as it is used as a behavior modification process is considered. This course may be used in transfer to UWF and may be accepted at other upper division schools. Students should consult the department for program planning.

* 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